# The Builder.

VOL. XXXIII.—No. 1666.

*The Flaxman Gallery in Gower Street.*

It is now a good while since a collection of models or casts of some of the finest works of John Flaxman, as well as a numerous array of pen and pencil sketches and miniature models, were presented by his adopted daughter, Miss Denman, to the trustees of University College, Gower-street, and provided with house-room in that cold, but nevertheless handsome edifice. The shrine of art thus created attracted a good many pilgrims at first, but has been deserted of late, and we have reason to think its existence is little known among the younger generation of enthusiasts. The collection has been commented on in these pages before now, but a few words by way of a "meditation" among these relics of a lofty mind may not be out of place, at a juncture when many are deploring the low state of the sculptor's art among us, and the unfortunately debased nature of public taste in regard thereto.

The larger casts of the collection are arranged in panels on four sides of the octagon-hall, forming the upper landing of the main staircase, and surmounted by the cupola, which forms the centre of the external design. Within this chamber may be studied and compared at leisure designs which, in their final form in marble, are only to be found in various somewhat out-of-the-way places, some of the best of them having been commissioned as family monuments for erection in places of worship:—Chichester Cathedral possesses two or three, and others are in parish churches and private collections. Conspicuous as the centre object is a full-size cast of the grand group of "Michael and Satan," executed for Lord Egremont. Few modern designs are better known than this; yet it is one which will always bear looking at once more, and which serves, moreover, to point a moral in regard to the class of subjects to be chosen for sculptural illustration. We hear much talk from popular critics about choosing subjects which appeal to the understanding and feelings of the people, and illustrate something with which the everyday mind is familiar. But, in spite of modern contempt for the allegorical, few persons would have the temerity to uphold that there could be any question as to the value and impressiveness of such a group as this over any number of "Reading Girls" or "Breton Peasants."

It is, however, rather to some of the bas-relief groups on the side-walls, less known or remembered at the present moment, that the notice of the appreciative visitor would be directed. A large proportion of these are, it may be observed, directly and pronouncedly Christian in subject and character, and in the purity and nobility of their artistic treatment serve to show how narrow and one-sided was the idea practically adopted by Gibson, that, because the Greeks were the great perfectors of sculpture, therefore none but Greek subjects could furnish adequate occasion for the highest expression of the art. In fact, Flaxman occupies, in regard to this question, a middle place between the classicists and the realists, but combining the best elements of both. He shows us how it is possible to retain the simplicity and grandeur of line of the Greeks, while adding to this æsthetic beauty the depth of sentiment and the attribute best expressed by the word "holiness," which is found only in Christian art; how it is possible again, to represent scenes of ordinary domestic joy or sorrow, without forgetting the dignity of sculpture, or thinking it necessary to cut brocades or chair-backs out of the marble. Among the designs which illustrate Flaxman's noble treatment of the loftiest and most intense moments of religious aspiration, are to be seen here some of the series of the "Lord's Prayer," which it is superfluous to mention to any of the minority to whom such works are an unforgotten treasure, but which, nevertheless, we know are passed over and unknown by many who ought to be acquainted with them. Among these are to be noted the powerfully-conceived group, illustrating the words "Deliver us from evil," with the central muscular figure in high relief, and in an agony of struggle against the lower influences, which would draw it down; and the simply composed subject, "Lead us not into temptation," in which the motive and feeling of the petition are so admirably typified in the combined movement of all the lines of the group from the tempter and towards the direction indicated by the pointing finger of the directing figure. This art of giving to a whole group a combined sway and impulse was peculiarly cultivated by Flaxman, and numerous examples of it are to be found among his illustrations to Homer and Dante. One of the finest among the "Lord's Prayer" designs is that in which a grand female figure in the midst of a group, in high relief, typifies the words, "Thy Kingdom come"; and it may be noted here how Flaxman could discard mere beauty and delicacy of line in the female figure, when he wished through it to express the higher attributes of power, hope, or energy. On the same wall is an example of Flaxman's power of simple pathos in the representation of the every-day sorrows of humanity, in the group of the dying mother, supported by her elder daughter from behind, while the younger kneels with one hand thrown over the recumbent figure, and the other shading her face: a beautiful combination of natural grace and pathos of expression.

The then new relations of England with India have their record in some of the most interesting of Flaxman's bas-reliefs. That of "Sir William Jones preparing his Digest of the Hindu and Mahomedan Legal Codes," prosaic as it may sound for an art-subject, became in the sculptor's hands a most effective group, owing to the contrast of national feeling and character exhibited in the handsome alert European countenance, and the dreamy thoughtful expression of the three Orientals opposite, who are assisting him in his task, and whose very attitudes are full of significance and character. But a still more striking work of this class is the group of two figures in relief called a "Hindu and a Mussulman contrasted," and which, in addition to its fine character of modelling, is interesting, as showing Flaxman's power of grasping and concentrating, in single figures, the typical characteristics arising from differences of race and of creed. Here the follower of Mahomet, full-robed, long-bearded, stands poring devoutly over the volume which contains the precepts of the founder of his religion; while the Hindu, a noble figure, naked to the waist, where his drapery is gathered and descends in bold folds to his feet, stands with head upraised and a bold speculative expression, with a half-glance of scorn at his devout neighbour's deference to precept and authority. This is a remarkable group, in view of the amount of thought and of human character (in the wider sense) concentrated in these two figures. Two compositions having more direct reference to real life are, that called "Maternal Affection,"—a very graceful group, in which the elder sister holds up the infant to the mother, who slightly stoops to kiss it,—and one under the title of "Clerical Instruction"; the last an unfortunate subject for the sculptor, in regard to costume. Yet he has made a very pleasing figure of the venerable clergyman in his robes,—a figure recalling a type of clerical character now all but extinct,—and has touched the group of children, in their quaint prim dresses, with that loving hand which he, in common with all artists of the highest type, always brought to the delineation of the innocence and *naïveté* of child-life. As a contrast to these lower flights of the artist may be noticed an exquisite design representing "the good received into everlasting bliss," a buoyant undulating figure, apparently just about to soar upward from the earth into a more congenial and celestial atmosphere, and in which the poetry of the art is carried to its highest point.

The sketches of Flaxman which were included in this bequest are arranged in a frame ingeniously contrived so as to present, by turning its various portions, the greatest amount of surface for affixing the drawings within a small compass. The different faces are distinguished by letters of the English and Greek alphabet, and the collection includes some careful studies for larger and well-known works, but is chiefly a collection of small and rather slight sketches of groups of figures in various actions and attitudes: nearly all interesting; some of them of great beauty. The artist's own portrait, as a boy, occupies appropriately the centre of the first screen. In the series of small figure-sketches on Screens C and D, we are irresistibly reminded of Blake, whose sketches in this form are often so grandly and poetically suggestive; more so, perhaps, than his finished figures, often marred as they were by carelessness in regard to correctness of detail. But in these smaller works the two artists often resemble each other exceedingly; and some key is thus furnished to the basis of the intimate and loving friendship between two men, who to outsiders would seem so utterly diverse, as the quiet, gentle, propriety-loving Flaxman, and the fiery eccentric author of the "Illustrations to the Book of Job," who was prepared to sweep away all the proprieties with a besom of destruction. On Screen E are some powerful sketches for illustrations to the Commandments, especially "Thou shalt not steal," and "Thou shalt do no murder," in each of which the motive is the same,—an attack by a powerful and muscular naked figure, who in turn is arrested by an angel, sword in hand. The centre of Screen L is occupied by a very pathetic group, in which a child is raised to kiss a dying person, who is supported in a sitting posture. The sketch on Screen Q, under the title, "Instruct the Ignorant" (a favourite subject with Flaxman), illustrates his exquisite feeling in delineating the nature of children: the little learner is shown with head nestled back against the shoulder of the teacher, in whose arms he is sitting, looking at the book held before him with a childish intensity and earnestness of attitude which is as true as it is difficult to realise in representation. Fine studies are to be found further on, for the series entitled "Acts of Mercy," and for illustrations to the second part of the "Pilgrim's Progress," among which Christian's "two ill-favoured ones" are depicted in a characteristic manner. In the centre of Screen X is a beautiful sketch of a nude female figure fronting the spectator, but with head averted, looking back

and with a child clinging to one hand: slight as this is, nothing could be more perfect than the sway and balance of the figure, and the ease and grace of its action.

The staircase leading to the gallery exhibits subjects, mostly in low relief, in panels on the walls, some of them fine enough in form and feeling to make a reputation in themselves; notably a draped female figure to the right at the top of the first flight of stairs. These single figures, with no name or title attached to them, affect the mind like some beautiful fragment of poetry, suggesting ideas and fancies to which no more definite form can be given. Mulgrave Watson's statue of Flaxman, seated, which faces the top of the staircase, is in a bad light, and the shadows under the brows especially is exaggerated thereby; but as a specimen of a portrait statue this is no commonplace work. By selecting the sitting posture the artist has avoided the disadvantage of figure in his original, and by the disposition of the drapery, and emphasising the fine proportions and characteristic contour of the forehead, has brought the likeness of the great sculptor as nearly into keeping with the dignified and noble character of his surrounding productions as was possible. The contrast between the feeble and almost insignificant frame of the artist, and the character of the works which he produced, is remarkable even in an age when we have ceased to reverence outward physical development as in any way connected necessarily with mental grasp; and it is not surprising that the contrast should have so struck the nobleman for whom the great group of "Michael and Satan" was executed, as to lead him to record his feelings in the inscription placed on the pedestal, and which may not be sufficiently within the memory of all our readers to render its repetition here superfluous, highly honourable as it is both to its author and its subject:—

"This group was executed by John Flaxman, R.A.P.S., a man who presented the most striking example of the pre-eminence of the mental over the corporeal faculties of human nature, in the union of the most tender frame with the strongest energy of character, with the most exalted sentiments of honour, with a heart actuated by universal benevolence, and with a sublimity of genius of which this work remains a splendid monument, hardly surpassed by the most celebrated productions of ancient times, and certainly by none of his own."

What is known and recorded of the sculptor's character justifies such a eulogy as this; what he has left in evidence of his power as an artist is still more indubitable, though it is of that class of excellence which does not appeal to the popular mind, and which is too far above all "shibboleths" of art to obtain favour with some even of professed artists, in these days of cliques and affected preferences for some peculiar mannerism of feeling or of execution. And, therefore, it seemed not quite superfluous again to say a word, as a kind of reminder, in regard to a collection of his designs which has a little dropped out of recollection, and which is far beyond anything that is either done or thought of in sculpture at the present time. The collection is professedly only open to the public on Saturdays during the period of recess at the University, though we believe few at present are aware of, or avail themselves of this opportunity of visiting a collection far better worth attention than most contemporary exhibitions. We imagine there is, however, no difficulty in obtaining access to it at other convenient times, on proper application.

The College contains, as some of our readers may remember, another object of artistic interest in the *Marmor Homericum*, a fine specimen of decorative design in inlaid marble by the late Baron Triqueti, presented to the College by Mr. Grote, and representing a group of personages from Homer, with mythological heads in medallions, &c. This was intended as a specimen of an indestructible wall-decoration of the same nature as mosaic, but allowing of being seen nearer the eye, as the outlines are clean lines, and not formed of cubes as in mosaic work. We recall attention to it in order to suggest further consideration of its applicability in the decoration of important buildings, both externally and internally. The process does not give either the richness of surface texture or the gradation of colour attainable by the process of mosaic; it has more of the character of permanent fresco, in fact; but it is certainly worth consideration, especially as a means of decoration in buildings partaking of a Classic character, and where purity of line and delicacy of tint are desired in the decorations. The matter should hardly be allowed to drop without some decisive experiment.

## GREAT GRIMSBY AND ITS SANITARY SHORTCOMINGS.

THIS ancient corporate and Parliamentary borough, situate on the Lincolnshire shore of the Humber, is fast developing into a town of some commercial importance. In the old days now long past, when our English history was but beginning, tradition gave it a name derived from one Gryme, a Danish pirate, who flourished in the seventh century, and made this his headquarters and rendezvous. The hero of Lucknow and Cawnpore is said to have descended from Havloc, a prince of Denmark, who was abducted from his home by the bold outlaw, and resided here. The name is found in various periods of successive reigns, and in the seventeenth century George Havelock was an opulent merchant and mayor of Grimsby. This was a seaport of note from the times probably of the Saxon heptarchy if not indeed anterior to it, as the seven tumuli in adjacent marshes testify. It was here that the Danes effected a landing on their first invasion of England. In the troublous reigns of Richard I. and King John it attracted legislative notice and a royal visit, and returned two members to the Parliament of 1283, by whom Grimsby as a thriving port was represented. In later times it was visited by royal families, notably by bluff Henry VIII. and his consort, Catherine Howard. The trading pursuits of the maritime inhabitants with the northern countries and neighbouring shores of the Netherlands seems to have been large during several centuries; whilst at the siege of Calais the port supplied Edward III. with eleven ships and 170 men. Grimsby in former periods possessed several religious houses and many monuments. The Black Canons had a monastery at Wellow, whose abbey had attained to wealth and interest, for, at the date of surrender to Henry VIII. by the abbot, Robert Whitgift, the revenues amounted to 152*l.* 7*s.* 4*d.*; when the lands passed from that anti-monastic monarch by grant to Sir Thomas Heneage, a progenitor of the present patron of St. James's, the parish church, and local landowner. Besides the abbey were two priories, a nunnery, a chantry, and a house for Hospitallers.

Some of the monumental remains are now in the church,—notably, an effigy of a knight in armour, recumbent,—Sir Thomas Haslerton. The date of the founding of St. James's Church is lost in the mists of antiquity, but is presumed to be earlier than Henry I.; it was formerly an Abbey Church.

It is an imposing structure, cruciform in plan. Over the transept rises a square massive tower, resting on four piers, 90 ft. high, and erected in 1365, according to an inscription in the chancel. In the neighbourhood are some Druidical remains and places of ancient defence.

From towards the close of the sixteenth century the port of Grimsby gradually dwindled in importance and prosperity, in consequence of the silting up of its haven, until nothing was left of the former greatness but relics. Indeed, according to that painstaking historian, Gervase Holles, the merchants and tradesmen, artizans and members of the Corporation abandoned the town, which became so depopulated that "one solitary coal-sloop was sufficient to supply the town," and he further proposed to "leave it venerable for antiquity, and write over the gate, *Fuit Ilium*." But not so, for after generations of dormancy, Grimsby has arisen, Phœnix-like, from its ruins, and may be yet greater than ever.

In common with a few other commercial towns, Grimsby has made great strides, attained rapid growth, and approximately doubled its population in the past decade. The era of prosperity, however, dates backward a few years from the time of improvement of the haven and the construction of docks, especially the magnificent new works designed by that eminent engineer the late James M. Rendel, and executed for the Manchester, Sheffield, and Lincolnshire Railway Company, to whom Grimsby as a seaport owes her modern importance. These works were almost entirely created upon ground reclaimed from the estuary of the Humber by means of a cofferdam and embankment a mile and a quarter long, enclosing 135 acres of land. The water area is large: the Royal Dock covers 25 acres; the tidal basin, 15 acres, with fishing and timber docks; besides the Old Dock, with which a gut is now being cut to connect them. Perhaps the most prominent features in this undertaking are the hydraulic tower, a structure 28 ft. square at the base and 300 ft. high, forming a beacon far out into the German Ocean, and from which splendid views of objects are obtained many miles distant. This furnishes the water-power to work the requisite machinery of the docks and wharfs at a pressure of 100 lb. per square inch. The next are the lock-gates: the flood-gates in the 70-ft. lock, made of oak chiefly from the Black Forest, in Germany, weigh 110 tons apiece, and are marvels of workmanship.

Some knowledge of the trade of the port may be gathered when it is understood that the value of exports alone is estimated at upwards of twenty millions sterling for the current year, the exports twenty years ago being a little over one million, and ten years since six millions sterling in value. Four hundred smacks for deep-sea fishing are owned by the townsmen, and worked by 3,000 men and boys; whilst many crews belonging to other towns discharge cargoes here. The value of fish landed may be taken at three quarters of a million sterling at least, and the weight at upwards of 40,000 tons.

Having—however slightly—touched upon the ancient and modern history of Grimsby, it is now our duty, not wholly a pleasant one, to refer to some investigations made on the spot with a view to determine whether the onward march of the town had kept pace with sanitary progress. Nevertheless, we take it that such impressions as it may be necessary to state will be accepted by those whom it may concern in the spirit they are given. Geologically it may be said that the town lies upon the chalk formation; the superimposed strata however consisting of esturian deposits of silt, gravel, clay, and sands with bands of turf or peaty matter. The locality is for the greater part flat; much of it lying originally below the level of high water. The streets are seemingly elevated very little above the sea line. Subsoil water—judging from some wells examined, and from other indications observed—is generally within a few feet of the ground surface. The town is drained by a series of sewers divided into five districts terminating in open watercourses flowing into the Humber; so that here as in too many towns the pernicious habit is followed of turning pure streams of fresh water into vile open sewers. The bulk of the sewage is intercepted by the Weelsby and Clee drain, an open course which skirts the south and east sides of the town, passing between streets of houses, and for a considerable distance often within a few yards of the buildings. The lower end of this drain or quasi-sewer is covered, and provided with a sluice so that the dammed up sewage may be let off into the tidal haven at stated times. The effect of the decomposing matter given off in the line of houses, and particularly at the outfall, where the fluid has to find its way for a third of a mile into the sea past shipyards, workshops, and other places of business,—and to the people resident on Lock-hill, the lower end of Victoria-street, the Cleethorpes-road, with subsidiary streets,—must be most injurious to those who breathe it.

We found in many parts strong effluvia arising from this open ditch and the Haven, partly due to the stagnation of sewage, but mainly to the action of the sun and heat upon matter left adhering to the banks by fluctuations caused by the sluice and natural variation of rainfall. This is a serious thing, and should receive prompt remedy; for, as the town increases in size, so does the nuisance; whilst the engineering difficulties in the way of a proper system of drainage are not insuperable, and ought not to stand against public health and convenience. Again, the condition of many branch drains is not satisfactory,—indeed, less so, in newer parts of the town than in older. From the level character of the locality, not much fall can be obtained in the drainage scheme; hence graver necessity for impervious sewers and provision for flushing arrangements at their heads. Further, the state in which numerous box-closets and ashpits were found suggests more frequent visits from the scavenger and dust carts; for the accumulation of night-soil and garbage in the midst of a population, and the saturation of the subsoil of yards and outbuildings by percolations from them, are attended with well-known evils.

Grimsby is blessed with an abundant and pure supply of drinking-water, of which approximately one-half the inhabitants avail themselves. About a mile and a half to the south-west of the town, near to the village of Little Coates, are a number of springs of cool and pure water, of which there are many such in Lincolnshire, and called in the local vernacular "blow-wells." These are holes in the ground, of conical section, penetrating through the superstrata of clay into

the chalk beneath, from which the water is forced, bubbling up in constant streams of many thousand gallons per day. From the storage reservoirs the water is pumped by an engine of adequate power into the town, under the constant system, at a pressure of 25 lb. The other half of the townspeople derive the domestic water-supply from wells sunk in the yards and courts into the gravel or chalk, and in positions convenient for access from the dwellings. Unfortunately this facility of approach, in numerous instances, has placed the wells in juxta-position with the back drains, and, we fear, at times in actual communication with, by percolation and subsidence of, sewage. This was more especially found to be so in the modern town, on the east of the railway to the docks. Reference to notes of streets in these parts, made some time ago, reveals a truly deplorable state. In New Market-street we examined a row of ten houses, occupied by artizans and labouring and seafaring classes, all of which were furnished with water from a well in the rear, strongly contaminated with organic matter, and possessing a soap-suddy appearance, with the following result:—

1. Four cases of low fever.
2. Two cases of contagious disease.
3. Occasional diarrhœa amongst the children.
4. Tenants were absent.
5. Four inmates, three of whom were confined to the house with diarrhœa.
6. Two inmates, — complain of frequent diarrhœa.
7. Eight in family,—all of whom suffer from diarrhœa at times, some severely.
8. Seven occupants,—all have suffered from prevailing attack.
9. Six inhabitants,—one laid up with diarrhœa. The people here complain bitterly of the filthy water from the well.
10. Nine persons,—two suffering from infectious disease, and two laid up with diarrhœa.

In an adjoining row of ten houses, the people were actually suffering from disease in eight at the time of visiting, chiefly from diarrhœa. Inspections of dwellings in adjacent streets revealed, in house after house, a similar state of things,—disease the rule, and health the exception,—from bad water drunk, and foul emanations emitted from sewers breathed. Pumps were found giving out water contaminated with sewage, and containing living organisms, in courts of older districts of the town, such as King Edward-street and Burgess-street, with their offshoots; but not in such numbers as in other places, yet bad enough, in all conscience. It was pleasant to find in these back parts a few oases here and there where green plants grow, with good water supply, clean gutters and pavements, and free from disease.

The streets of a busy seaport, where the transactions consist largely in coal and fish, would not be expected to present a model appearance of cleanliness; yet there are grave reasons why the scavenging powers of the Local Board should be more stringently enforced. The bye streets and lanes, the waste grounds and building plots possess in many parts a combination of unsavoury odours. Moreover, a stale fish-like smell pervades the town; garbage and fish offal lie about in heaps; hollows are filled up with refuse from piggeries and general sweepings, in a short time to be built upon: particularly in the new portions of the borough and upon the Dock estate are these evils found. Notably, in a street (for which we could discover no name) on the east side of the new basin, and leading to the pontoon, garbage is redundant. At one end of this road is a sheet of water—a receptacle for fish offal and the drainings of necessaries and warehouses, all presenting a sad spectacle and unhappy contrast.

The town from its easy communication with the Continent, and the numbers of German and other emigrants passing through it, will always be subject to disease of epidemic kinds imported; whilst its unsanitary condition and consequent low tone of health of much of the population, make it a hot-bed for the propagation of zymotic complaints far and wide. Putting aside acts of humanity, and a first law of nature, that health is of primary consequence to man,—purely as a speculative concern, as an affair of financial policy, the inhabitants of Grimsby would be immensely gainers by a thorough sanitary reform, to be obtained at an expenditure of a few thousands; and a proper and judicious system of inspection, coupled with administration of sound bye-laws, by competent officers. Reference to the autumn returns of the Registrar shows that more than 50 per cent. of the deaths were preventible, and less than 4 per cent. were from decay of nature. For many years past, and without any signs of abatement, the town has suffered severely from recurrent attacks of diseases, which stout effort should be made to stamp out. Closely on the heels of cholera follow typhoid, smallpox, and scarlatina: each year brings forth its harvest of untimely deaths, whilst fever and diarrhœa are permanent. So let Grimsby awake! and tear away the scales from her vision, and with new broom sweep the cobwebs from her midst, where the germs of preventible diseases lurk, find nourishment, and grow.

## THE ARCHITECTURAL PROFESSION.*

MR. FERGUSSON, in his able and interesting history of architecture, expresses the opinion that the system of architecture for the last three centuries has been false, and that the works produced have been mere copies and shams, void of interest, and valueless, as compared with the products of the true styles which, till the Reformation, had prevailed in every country. "The great change which was introduced at the Reformation," he says, "was this. A Technic art came to be cultivated on principles which belong only to one of the Phonetic class"; that is to say, architecture which is only the useful art of building elevated to a *fine* art, as "cooking may be refined into gastronomy and tailoring into an important art without a name," came to be treated as if it were like poetry, painting, or sculpture, one of the phonetic arts, "merely different modes in which men's thoughts can be communicated to other men, or perpetuated for the use of posterity." In the technic or useful arts, those, for instance, connected with food, clothing, or shelter, progress has been slow and gradual. Each worker is heir of an accumulated experience, and so any mechanic can now make a better steam-engine than Watt: "as in India, at this hour, local masons, who can neither read, write, nor draw, can design as beautiful buildings as ever graced that land." But in the phonetic arts,—poetry, painting, sculpture,—"the individual stamps the value." "We do not now find men writing better epics than Homer, or better dramas than Shakspeare. We do not see finer sculptures than those of Phidias, or more beautiful paintings than those of Raffaelle." "No one dreams," therefore, "of altering a poem or of improving a statue or picture, though they may be the production of inferior artists. But in the Middle Ages no one ever hesitated to rebuild the nave of a cathedral, or to add towers or chapels in the newest fashions to the oldest churches," just as "no Comptroller of the Navy ever hesitated to cut one of Sir W. Symonds's ships in two, if by lengthening her he could improve her qualities." "No one has cared to record the names of the designers of the Mediæval cathedrals; probably nobody knew who the architects were. The art was a true art; it was more difficult to do wrong then than to do right now. No genius, however great, could then enable an individual, to get much ahead of his compeers, while the most ordinary ability enabled any one to do as well as the rest." But "the individual is now everything in architectural art, while the age is of as little importance as in a poem or a picture." And so "it would be considered sacrilege to meddle with or attempt to improve St. Paul's Cathedral out of respect for Wren (I only wish it were so considered), and Blenheim must remain the most uncomfortable of palaces, because it was so left by Vanbrugh." "The new system subjects art to the caprices and vagaries of individuals." "What a man learns in his lifetime dies with him;" "his successor has to begin at the beginning;" "their careers probably cross each other." "An architect in practice can never afford many hours to the artistic elaboration of his design," and hence "the remarkably small amount of thought that a modern building ever displays. The evil has been aggravated in modern times by architecture being handed over too exclusively to professional men who live by it, and generally succeed more from their business-like habits than their artistic powers." In conclusion, Mr. Fergusson says that, "without a reorganisation of the whole system, we must be content to allow copying to the fullest extent, and must be satisfied with shams, either classical or mediæval, until at least the public are better instructed, and demand or initiate a recurrence to the principles that guided the architects of these ages when true and real buildings were produced.

I do not think it a straining of Mr. Fergusson's opinions to say that his view is that, under the present system in which architects direct the construction of buildings, by means of drawings, good architecture cannot be produced, and that we should return to the system of the "true styles" when there were no architects in the modern sense, but the employer communicated directly with the workman who executed the work; in other words, that architects should be dispensed with. The opinions of Mr. Fergusson have been restated in three articles in the *Quarterly Review*, entitled "The State of English Architecture" (April, 1872); "The Completion of St. Paul's" (December, 1872); and the "Hope of English Architecture" (December, 1874). In these articles in which the writer argues that in Greece, Rome, and Mediæval England (which last with more patriotism than accuracy, he says, was "for six centuries the finest scene of architectural display that the world ever saw"), as well as the Continent, architecture was produced, not by architects directing workmen by means of drawings, but by men who, while working with their own hands, had a charge of their fellows as foremen or master-workmen. He quotes numerous cases in proof of this from Mr. Street's book on Spanish Architecture, in a tone which seems to imply that he convicts Mr. Street of inconsistency in relating them and yet continuing to practise as an architect on the system now prevalent. His latest article concludes as follows:—"Such was the master workman of the past, whose free imaginative power has ever been the life of art; and in like manner the emancipated workman, gloriously 'impelled,' must always be, and is, the only real hope of English architecture." He expresses his hostility to architects unrestrainedly. "These eminent persons," he says, "have been the bane of art for the last 300 years." Again, he calls them, "A spurious, we had almost said a quack profession"; and again, he says, "There will then be no need of the 'profession,' and architects will subside into their proper places as bookmakers, artists, business men, students of symbolism and archæology, and, in fact, pupils and illustrators of those very workmen whom they now profess to direct and to control." The reiterated publication of such opinions on high authority is a challenge to architects to show reason for their existence, for Mr. Fergusson is without an equal, in his peculiar province, as a writer on the various architectural styles. If these opinions be well founded let us as architects, by all means, perform with what dignity remains to us, the happy despatch; and withdrawing from the practice of an art whose true progress we are arresting, give place to our worthier successors, the builder and the British workman. But before doing so, we may be permitted to examine the justice of our sentence.

The opinions above recited assert or imply not only that in the best times of the art architecture was produced without architects, but that this is the only right way of producing it. If they have any practical meaning, and are to influence the conduct of any one in the present day who is thinking of building, they amount to an advice to him not to go to an architect for his plans, but to work them out himself with some intelligent foreman or builder. That we as architects should oppose this new teaching is to be expected, and I think is right; but there is a risk that our opposition may not make so much impression as we could wish on the public, for they may think it the same in kind as that against Paul's preaching at Ephesus, which those who made silver shrines for the great goddess Diana united to stir up (though doubtless each had his grudge against another at losing jobs which the other had got) because their craft was in danger. I do not think there is much danger of the suppression of the architectural profession. It will, at least, die hard. The public certainly cannot do without us if they want something better in art and building arrangements than the builders unaided have been giving them in those miles of houses growing up like mushrooms in all our towns. We might admit as true all that Mr. Fergusson and the reviewer say as to the difference of the modes in which architectural works were produced in former times and now; we might admit the reality of Mr. Fergusson's distinction of architectural styles into false and true, though not, perhaps, approving of his nomenclature; we

* By Mr. John J. Stevenson. Read at the Institute of British Architects, January 4th, as elsewhere mentioned.

might even admit a just dissatisfaction on the part of the public with the results of our late efforts in architecture (and we were told on good authority at our last meeting, that the public are not satisfied with us); and yet be under no constraint to acquiesce in the conclusion that architects should be abolished, and that it is to the working men we should turn our eyes for light and guidance.

Mr. Fergusson's condemnation of us is that since the Reformation architecture has been conducted on a false method; that whereas it is a "technic" art, it has been treated as if it were a "phonetic" art, like sculpture or poetry; and that instead of developing by a natural process of evolution, it has been under the control of individuals. I do not think the terms "technic" and "phonetic" are happy. To say "*technic* art" seems tautological; "phonetic," implying sound or speech, does not properly describe painting or sculpture. This is, perhaps, of little importance, but the distinction itself has no existence in reality. The arts which Mr. Fergusson calls "phonetic" do not arise out of the gift of speech, as Mr. Fergusson asserts, but are rather substitutes for speech. He seems to have classified the arts as technic and phonetic, putting aside the familar distinction of the arts as useful and fine, in order to avoid classing architecture as a fine art with painting and poetry. But in truth the distinction among these arts does not lie in the subject matter of the art, but in the *manner* of treatment. Any useful art may become a fine art by having added to it the element of *fineness*—of beauty of colour or form, or of expression, that is, any element making it the vehicle of human feeling or emotion, such as tenderness, gladness, solemnity, or even, perhaps, mere refinement and perfection in work. "Every useful art," Mr. Fergusson says, "is capable of being refined into a *fine* art." Architecture is not only a fine art, but it is included in Mr. Fergusson's definition of the "phonetic" arts, being one of the noblest and most lasting modes by which men's thoughts can be communicated to other men, or perpetuated for the use of posterity.

Now, one of the results of an art developing into a fine art is, that the art expressing the personal emotions and feelings of the artist, we come to have an interest in his personality. We resent the alteration and interference of others, as destroying the value of the work,—the art becomes individual. This, at least, is the case in our present state of society and civilisation. But in certain states of society we find arts flourishing in what we may call a traditional manner. Their origin is lost in the past. They are handed down from father to son. They are understood by the whole community, and seem the expression of the national character. Their progress is slow and gradual, and we can measure it only by comparing the productions of the art at long intervals of time. This is what Mr. Fergusson means by a "true" style of architecture. But he is in error in saying that architecture in being so practised differs from poetry and other arts, for in these arts, in primitive states of society, we find the same state of things,—we cannot recognise the individual inventor in poetry and sculpture, any more than in architecture. They are lost in the community, or in a school of poets or sculptors handing down a tradition. In them, as in architecture, the age seems everything, the individual little or nothing. Mr. Fergusson ranks Homer with Shakspeare, as both equally historical personages. But few now hold that the poems of Homer are the work of any one man. They and other early Greek poems come to us as the collected traditions of the schools of professional singers and rhapsodists, who recited them at the public festivals. In the early history of every race literature and all the arts exhibit the same characteristic. The folk's lore and national tales, characteristic of the genius of each people, even when traceable to some far back source common to them with other races, the national proverbs are all authorised, so far as we know, and with as much truth as a style of architecture or ornament might be said to be the result of slow accretions of tradition. But no one would think of calling only such national poetry and literature true, and that by poets whose names we know false, or of lamenting that under our modern system literature had lost its ethnological value. All other arts were conducted on the same principles in these early stages of society.

The art of sculpture was practised in the same anonymous traditional manner; a useful art to begin with, to supply idols for worship, of the rudest and most practical kind, as we see from those lately found at Hissarlik (claimed as the site of Troy) the growing refinement of the Greek race, which tingled with art to the finger-tips, in time made these statues of the gods the highest expression of art which the world has seen. Early Greek coins show a slowly developing tradition. The later coins of Syracuse are signed by their sculptors. In the art of music it is the same; each nation has its national airs, breathing the spirit and sentiment of the race handed down by tradition, and doubtless changing and growing as each musician passed them on. But since the time of Palestrina, composers, like architects, have asserted their individuality, and the history of music, like that of architecture, as Mr. Fergusson complains, has become an account of the lives of inventors. And in other than the fine arts the same thing is seen. Any ship-carpenter used to be able to build a ship about as well as any other; but now we hear of individual inventors, and though this takes from us the safety of slow progress, and renders us liable to a fiasco like the *Great Eastern*, no one thinks of urging that the designing of ships should be relegated again to the hands of working carpenters. And in like manner the so-called phonetic art of painting has passed through a stage similar to that of the "true" styles of architecture—the state in which it was in Italy when Cimabue gave it life, in which it still exists, in the supply of pictures for Greek churches,—a fine art in a sense, not without a sort of beauty, under its conditions,—a tradition transmitted by common workmen, gradually advancing, or at least changing with the advancement or decline of the race.

Now let us consider the state of society in which the arts are traditional. It is a state of stagnation. There is a stock of ideas, very small, common to all the tribe; every man thinks exactly like his neighbour, and as his fathers did before him. All wisdom comes from their ancestors, and the old men, as nearest that source, are the sole repositories of truth. New ideas are regarded as blasphemy, and if they spring up are crushed out by the common sense of the people. The thoughts and ways of other nations are regarded with hatred as things the earth should be purged of; or, if with tolerance, as strange and inconceivable. The customs are often circumscribed in the narrowest districts: each village has its own peculiar dress, each district its own type of building.

The length of the period during which a nation may remain in such a state is absolutely indefinite. Many savage tribes appear never to have changed since the stone age. The East is still much as it was in the time of Moses, and from its daily life supplies illustrations of Biblical customs. The breaking up of such a state of things is always an epoch in a nation's history, and fills it with the gladness of new birth. The change may come to only one part of their life, or the whole social arrangements may be broken up. It came to the Florentines, in the art of painting, when Cimabue painted for the first time a Madonna with some touch of human feeling,—when he made the art phonetic, as Mr. Fergusson would say; and however feeble the flicker of life may seem in the picture, as it hangs gaunt on the wall in Santa Maria Novella, to us who know what the life grew to of which it was the germ, it filled the people with such joy that they carried it with shouting and triumph through the streets; and to this day the suburb through which it passed is called the Borgo Leto.

In our own day a new birth has come to the Japanese, affecting not their art only, but all their social state and customs. Their art, which to us was a new sensation, to them seems now crude and barbarous. They are delighted with the new idea of perspective and distance. They feel proud of marching in the ranks of European civilisation, and glory in black trousers and tail coats, as the outward and sensible sign of their new inward life. One who was present in Japan during the change told me that though the command of the Mikado, believed to be divine, was needed to start the nation on its new road, it would be powerless now to arrest it. The same sort of thing is happening everywhere. There will soon be no good to be got out of travel, for every place is getting like another. The beautiful national costumes of Norway are disappearing. In this country all these old ways are dying out. The Great Exhibition of 1851, as has been not untruly said, destroyed the last remnants of art in England. The old traditional arts are perishing everywhere. New Turkey carpets are harsh and bad in colour. We only know what the colour of them once was when we see an old one in some country-house where the furniture has been unchanged for a century. Every year, in India, carpets with the exquisite old colour have to be sought for farther up the country. I fear if Mr. Fergusson went back to India now, he might not find his village mason building the traditional tombs. In Persia the art has perished by the destruction of the old weavers in the famine, and the country has gone in for European ways. All over the East the art which has lived there since the days when the mother of Sisera looked for her son returning from battle with "a prey of divers colours of needlework," is perishing before our eyes. This age of steam and universal intercommunication is witnessing the destruction everywhere of arts which have their roots in the earliest traditions of the race. Their continued transmission depended on a stagnant social condition in the people, and when that is broken up they perish with it. It is sad, but it is inevitable; for the taste for individual freedom is like the tiger's taste for blood—once a man has known it, he can never again be a mere transmitter of tradition. And this is the age in which Mr. Fergusson tells us to return in architecture to those old ways which he says we gave up three centuries ago. He might as well tell the dead to rise. His book, "A History of Architecture of all Countries from the Earliest Times to the Present Day," is of itself proof that we have emerged from the state which conceives its traditional ways the only possible ones—that we can appreciate new and foreign ideas which, if they seem better to us, we are sure to follow under the guidance of their originators, and not of common workmen who do not understand them.

We see therefore that there is no ground, in fact, for Mr. Fergusson's division of arts into phonetic and technic, the first produced by individuals whose names we know; the latter anonymous, transmitted by tradition, and, therefore, he thinks, advancing by the slow improvements of ordinary and unknown men; that, on the contrary, anonymity and transmission by tradition has been at certain times a condition of all other arts as well as of architecture.*

## "THE HOPE OF ENGLISH ARCHITECTURE."

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

AN ordinary general meeting of the members was held last Monday evening, the 4th instant, under the presidency of Sir Gilbert Scott, R.A.

The secretary (Mr. Eastlake) announced with regret the death of Mr. Richard Bell, of Walbrook.

Mr. Haywood said that he was sorry to inform the meeting that he also had just heard of the decease of one of their oldest members; in point of fact, the father of the Institute of Architects,—Mr. William Kendall.

The ballot for Mr. John G. Hall, as associate, was postponed till the next meeting in consequence of some informality with regard to this gentleman's nomination.

The Secretary informed the members that Mr. John Gibson, vice-president, had presented to the Institute a pedestal for Sir Charles Barry's bust. (The pedestal is of handsome construction, and composed of red granite and marble).

Thanks to Mr. Gibson were given by acclamation.

Several gentlemen were then introduced to the President, amongst them being Mr. J. T. Wood, who is shortly to read a paper "On the Temple of Diana at Ephesus."

Mr. J. J. Stevenson then read a paper entitled "Master Workmen and Architects," part of which we print.

At the conclusion, the discussion of Mr. White's paper, which was adjourned from the last meeting, was resumed.

Mr. Haywood said that the title of the article Number 3, referred to in Mr. White's paper, was, he thought, a misnomer, the name having been given to it probably by an architect who had retired. First of all, the article began with amateurs in art and architecture generally, and described the chief evils which had occurred in the erection of buildings; and at the end it was equally strong, quoting from Göthe on the subject. In the middle it referred to the memory of Brunel,

* To be continued.

treating of the difficulty they had with the *Great Eastern* steamship, because some time elapsed before they got the noble vessel into the river. Then the article referred to Bond-street tradesmen carrying out their work. It referred, also, to modern education generally, and as to how the Universities were carried on, and how little satisfactory they had usually been; and, upon the whole, the article really took a general review of the present condition of the trades, and the ordinary system of working in society. There was no doubt but that the credit of the work that was done in the present day was given to parties who did not originally design the work; and a great deal of the profits of trade and business was obtained by the use of the brains of other people. Workmen in various stages, whose names did not occur, or did not appear, were subject to this; and more particularly was this the case in the trade of jewelry, or in designing in gold and silver work. Certainly in the Renaissance time the names of the jewellers were very well known, and they traded in their names; but in the present day this was not the case. When the reviewer came to speak of the condition of the working men of the present day, he did not state that they were in the condition assigned to them. The "Hope of English Architecture" was said to be in the working man; but there was no question how he must be improved. He must first of all be recognised; and the first thing proposed was to bring him out of his present position. He was now an "alien and an outcast" in "society," they were told; but what "society" would they like to put the working man in? When one came to read that statement, it did seem folly, mixed up with common sense. Mr. Haywood went on to say that he could not help thinking that the paragraph about that building—Portcullis Hall—must have been inserted in some odd way by a friend of the reviewer's. He thought that nothing was worse for the working men themselves, or any class of men, than to be petted and patted on the back as working men had been lately. From what he knew personally—and he appealed to Sir Gibert Scott, who had seen a great number of works executed of a high artistic character—he was sure that the ordinary general working man was always ready to learn and to study, and to see his faults whenever any one chose to point them out to him fairly. He thought, perhaps, that some gentlemen might question whether the museum at Tufton-street,—which he only wished was here at Conduit-street,—had produced any advantage or any good; and he should be glad of some practical statement to the effect whether or not the working man had taken advantage of it. With regard particularly to the view of English architecture they took professionally, it seemed to him that one of the greatest hopes of the profession was that of being thoroughly abused. The time was,—when the profession was hardly in existence, and there were few who took notice of them,—when they were supposed to be patronised; now, the architectural profession was established in every town of England, and whatever it did in the way of good, it did also a deal of bad, and on that account it received a great deal of abuse from parties of every class, and particularly from the largest and most important newspaper in the world, the *Times*. Only the other day, the *Times* took an extraordinary opportunity of abusing them with regard to industrial dwellings, that paper actually setting upon the architectural profession the burden of the fact, in so many words, that the population of London was not properly housed. If an important newspaper like that was supposed to speak the sentiments of the British public in issuing such a statement as that, surely it showed them that there was a great quantity of ignorance displayed as to their profession. What they wanted, and what was their hope, was, that one of these days such an amount of ignorance would be overcome, and that their employers, the public generally, would become more acquainted with architecture and its details than they were now. At the opening meeting of last session, 1873-74, they had a remarkable speech from the Marquis of Wesminster, who had stated that he believed that they wanted the study of architecture and art to form a part of the education in public schools, and generally amongst his (the Marquis's) class of society. In conclusion, Mr. Haywood said, that he felt very strongly that one of the greatest hopes of English architecture was, that the public would be better educated in the principles of architecture, and would be better able to appreciate their efforts.

Mr. Blashill referred to a copy of an inscription, which was exhibited on the walls, taken from a church in France, which stated that Guillaume le Telier, a master mason, was employed on the building for thirty years, and was referred to in French books as the architect of the church. He had been very much astonished when Mr. White, in the course of his paper, instanced a workman employed by Solomon in the building of the Temple as the architect of Solomon's Temple. Surely the reviewer never could have read the sacred writings properly, for there the statement is clear as anything could be, that Hiram was no more than a workman. King David not only left the money, but the drawings of the building, and Solomon only carried them out. It really was of importance that they should take some pains to know who were the designers of building, and who were the architects. It was only a few weeks since that a paper on Chaucer was written, in which Chaucer was set down as an honour to their profession; but there was no writing, to which they had access in which they found that Chaucer had anything to do with architecture. Some time in his life he was called "Clerk of the King's Works," but during the best years of his life he was employed as a receiver of taxes, and was compelled to be engaged in the duties of that office every day. Immediately he was employed as "Clerk of the Works" he appointed a deputy, and everything was done by that deputy, so that they could not infer from that that he had anything to do with architecture.

Mr. Aitchison thought that the articles in the *Quarterly* appeared to resemble what used to be called a simple converting of terms, as "Every goose was a bird," so the converse of the proposition was "Every bird was a goose." Because some architect was originally a workman, so every workman must be an architect. He was afraid that the reviewer, who really wished well to the profession, had, to use a common expression, "hit the wrong nail on the head." He had felt that there was something wrong about the profession, and he (the speaker) felt so too. They had heard a great deal said about the working man, and Mr. Aitchison had a great liking for working men, for they were the whole of mankind; but the working men, when they spoke of them generally, were those who did mechanical operations. The working man took a considerable interest in his work, he was fond of taking a holiday, and had an Englishman's liking for a good deal of beer; beyond that there was no difference between the working man and anybody else. As to their Trade Unions, they were almost the only things they could belong to; but architects belonged to a Trade Union themselves; and he had heard, too, that some architect of considerable eminence was absolutely "rattened" here. True it was that it was only cutting off a supply of bad coffee and worse talk. The architects of the present day were like a great French nobleman, who, it was stated, "died last night, and did not wish it to be known." They had a good deal of talent and energy amongst them, but it was turned in the wrong direction. They were a good deal like those people who supplied the costumes of old fancy balls in Wych-street, where they got everything, but no one seemed to think that it was necessary to get a man "dressed up" in his own time. There were distinguished architects among them, but they did not appear to get the very best or the largest number of intellects amongst them. In Mediæval times there arose a great demand for architects, and a man might build a cathedral without being thrown in a dungeon or burnt alive, so that they could not be surprised at so many people turning their attention in those days to architecture. The subject, however, he was asked to speak upon was the "Hope of English Architecture"; but he really hardly knew what to say upon it. He hoped there were new materials coming into use, and that as iron was a new material, they might get some of their younger friends to turn their attention to it; and if he might give them advice, he hoped what the poet had said would apply,—

"Like Robin Redbreasts, all their thoughts were fixed on a rail."

Mr. Woodthorpe confessed that he was not a great admirer of the working man, and his experience of him was very great in connexion with the Chartist movement. With regard to the articles in question, there was nothing to prove that the statements contained in them were true. He earnestly pleaded for a college or school of art, so that they might assume a position to the public, in order that they might not be condemned, as they were daily, at the present time.

Mr. White then gave, by the aid of the black board, an illustration of what he believed to have been the manner in which works were carried out in the Middle Ages, about the fifteenth century.

Sir Gilbert Scott said that he believed, as chairman, he ought to add something with regard to the subject, which was really extremely interesting and important, but so perplexing that he did not feel that he could give any opinion upon it. He confessed that he did not know what the hope of English architecture was. He was, perhaps, not a very proper person to speak on those papers, for, in the early ones, he was especially singled out for abuse. He had found out one thing that the reviewer did not like, but particularly hated, and that was the beautiful work that constituted the altar-screen in Westminster Abbey, because he thought that he (Sir Gilbert) designed it; but it happened to be designed in the time of Henry VI. He thought that there could be no doubt in any one's mind, when they looked back at the form of architecture which the whole world pronounced to be wonderful, by what manner of men this style was originated and carried into execution. The writer of these reviews had done something in directing their attention to the difference between those men and the architects of the present day. The president thought that he had exaggerated the difference greatly. The writer had referred to some points of difference which were genuine, and when they came to speak of the difference of the present day it was extremely important to them; and the writer had traced out the real truth and the points of difference. In his (Sir Gilbert's) first inaugural address, the year before last, he said the following, which he trusted the meeting would excuse him for quoting:—

"The first question which suggests itself is, *do all*,—does each in his chosen camp, and each according to his abilities and opportunities,—strive to the utmost to do his work *well*, and to fit himself for doing it in a manner characteristic of a period of earnest onward striving?

Now, one of the most marked characteristics of the productions of the great periods of architecture is this, that, though the works *of* any one of them differ in artistic merit,—some displaying the highest genius, others only comparatively unassuming correctness and propriety,—yet no *really bad* architecture is ever to be found among them. From the most majestic and glorious building downward, to the least pretending, the same matured knowledge, and the same careful, thoughtful working, are found ever to prevail. Who ever heard of a work of the Greeks at the great period of their art which they would presume to call *bad* architecture? Even in Byzantine art, though it laboured under great disadvantages, we have proofs in the ruined cities discovered in Syria, that these buildings of the more vernacular classes were as carefully studied as the mighty works by which their architecture is better known; while in works of the twelfth and thirteenth centuries in our own and neighbouring lands, as well as in Italy, the same masterly skill, and the same studious handling, are found in the simple village church as in the noblest cathedral,—nay, one is often disposed to uncover oneself in humbled reverence before the work of some unheard-of mason or carpenter in an obscure village, of which we had never before so much as heard the name; nor did these old workmen, so unambitious of fame,—ever produce work to the like of which the best or the most self-satisfied among ourselves need be ashamed to attach his name.

Now, is such the case among ourselves? It is worse than idle to attempt to blind our eyes by bland felicitations or to seek the bliss of a fool's Paradise;—let us rather look facts boldly in the face, and if they prove unpalatable, let us make it our business to correct them.

The true answer to the question is, that no contrast could be more marked than the difference in this respect, between the present state of things amongst ourselves, and that which prevailed at the great eras alluded to. Instead of all works (each in its own style) displaying the same instinctive sentiment, the same understanding of its style of art,—the same careful, wise, and thoughtful handling,—*the very reverse* of all this is actually the case. From each of our art-camps productions are put forth of the highest and of the most contemptible character, as well as of every intervening stage of merit and demerit. Our age and country will hand down some works of which no age or country need be ashamed, and others at which any age or country, however degraded its art, ought to blush: while I fear a large number of the buildings which will represent our period will be of that negative kind which, being neither hot nor cold, but only lukewarm, will not tend to excite any but a sickly emotion."

This, he believed, was a thoroughly true description of the architecture of the present day. There were some of the very best and some of the very worst that any age could produce. The points of difference which had been drawn by the reviewer proved very distinctly that there was no very great distinction between the architect and the workman in those days; they were all people who had a tendency to architecture. There was now an immense multitude who had no ability whatever. If, in former days, a man could do nothing but cut stones, he had to continue in that labour; but in these days he would turn architect. These were the men who brought disgrace upon the architecture of the present day;—they were the destroyers of architecture

and the disgrace of the age. He did not know how in the world this case was to be met; he had thought of it a great deal. They must band themselves together so that they would never receive a pupil unless he passed a qualified examination. As it was, five pupils sent to architects out of six were worth nothing in the world; and they stood as good a chance of getting on as anyone else, as Sir Edmund Beckett had told them. He thought, Sir Gilbert Scott went on to say, that the reviewer had exaggerated the difference of social station between the workman and the architect. The different classes of society were very much marked out, as in these days. There was this little difference between their sketching and that of the present day. In former days they sketched the same things as architects did now,—the very identical things,—so that now they were very old. This showed how infinitely they admired the very things that were admired now. With regard to the question of vernacular architecture, they should each do the best they could, according to the ability God had given them; and he would wish architects to improve as much as they could. The men who had zeal, energy, and ability were not apprenticed to masons, as in the olden time, but to architects. There were, however, exceptions among carvers, ornamental metal-workers, and decorators; and among these, as among architects, there were bad hands; but there were, however, thoroughly good artistic men in this class. These men they should encourage in their efforts; they had no pretension to make themselves architects, but to make themselves perfect in their profession, and it was the duty of the architect to assist them. He thought that they would make better architects, as well as better practical men, during the period of their architectural training, if they were to put their pupils among the works for a year or so.

Mr. White, in replying, said:—I attempted to refute the reviewer on historical grounds only, for it is generally admitted that in his "Hope of English Architecture" he is impracticable in theory, and theoretically wrong in the argument with which he supports it. Had he confined himself to the substance of his first article, called "The State of English Architecture," I should have hesitated to reply to his strictures. There must have been truth in that article, for in newspaper literature only the truth stings, and I am confirmed in this opinion by the knowledge that many architectural assistants,—associates of the Institute—who have done and are still doing good service to their masters, believe much of that article to be true. Now, I also have been an assistant, both in France and England, and lately in Calcutta, and I am convinced that, in many instances, the actual system of practice does not conduce to artistic excellence, nor is it fair to the junior and subordinate members of the profession. Though I believe that the hope of architecture depends more upon the public and upon amateurs than ourselves, still a great deal of good might be effected if, say forty members of the Institute, would zealously combine to introduce a practical reform. Suppose that ten of the younger Fellows—men like myself, for instance—and thirty of the elder Associates—men like Mr. Spiers, for instance—were to compose a Reform League, and that, having discussed the ways and means of action, we were to petition the president and council to appoint a Board of Examiners for the special purpose of examining us forty in the theory and practice of the building art? Such a Board might consist of the president, as chairman, and six of the English recipients of the Queen's medal, to be chosen by ballot of the Council. The names of the happy "forty," who I am confident would successfully undergo the ordeal, might be posted upon the walls of this room, and advertised for six days in six of the public journals. A certificate might be accorded to them; but no fresh letters or title would be necessary, because there would always be a sufficient tacit distinction between those who had submitted to an examination and those who had not; at the same time the elder Fellows might be declared exempt from the test. When the public came to understand this movement, and the rest of the profession to see the utility of it, it might be possible to compel future applicants for admission to our ranks to pass an examination, and then the present titles of Fellow and Associate would possess almost the force of a "degree." I hold in my hand a letter from Mr. Roger Smith, and he says:—"If you bring forward your proposal that a certain number of Fellows and Associates should ask the Council to examine them, you are quite at liberty to add that I am perfectly willing to join in making such an application, and to present myself to undergo any examination which it is fair to expect a man to pass who parted from his school-books twenty-five years ago, but who professes to be a competent architect." Let me add, that from this moment I am prepared to devote myself seriously to the task of organising the movement I propose; and that I will write a form of petition for the approval of members willing to assist me.

Mr. Stevenson thought that there would be a danger in making examinations a fixed rule. There was no doubt that where art was in a transitional state, where people were only doing what had been done before, and what had been approved by the verdict of many generations, there would appear difficulties. In music and other arts, bad works perished; but, unfortunately this was not the case in architecture.

Mr. Phené Spiers said that what Mr. White had proposed with regard to examinations was already in existence, and the best way would be, he thought, to endeavour to develop the old arrangement; for it had now been in working order for twelve years, and had done good work, and, if properly acted upon, would be one of the greatest benefits to the Institute.

## THE IMPROVED INDUSTRIAL DWELLINGS COMPETITION.

THE names of the following competitors, in addition to those of the premiated designers already published, have been forwarded to us:—

1. "Fiat" (Mr. G. A. Lean, 21, Oxford-road, Ealing). Design provides 264 dwellings, and 15 shops, with 60 rooms attached, giving a total of 1,046 rooms.

3. Withdrawn from exhibition.

4. "Comfort" (Messrs. Drury & Mortimer, Palfrey Chambers, Lincoln). Design provides 189 dwellings, and 18 shops with 22 rooms and cellars, giving a total of 791 rooms.

5. "Work Hard for a Laudable Object" (Mr. Henry Ambrose, 4, Grove-place, Brompton). Design provides 126 dwellings, and 30 shops with 30 rooms and cellars, giving a total of 642 rooms.

6. "Domus Amica, Domus Optima" (Messrs. Lee Bros. & Pain, Whitehall-place). Design provides 233 dwellings, with 21 shops and 117 rooms attached, giving a total of 955 rooms.

7. "Hygiene"—commended by Referees (Mr. Henry D. Sheppard, 34, Tavistock-square). Design provides 160 dwellings and 8 shops, with 32 rooms attached, giving a total of 666 rooms.

8. "Aspiro" (Mr. George Ransome, 8, Queen's-square, Westminster). Design provides 184 dwellings, and 12 shops with 32 rooms attached, giving a total of 752 rooms.

9. "250"—commended by Directors (Mr. James T. Smith, 14, Christchurch Villas, Upper Tooting). Design provides 230 dwellings, or a total of 912 rooms. Also, 14 shops with rooms in basement.

10. "Omne Tulit qui miscuit utile dulce" (Messrs. Francis T. Dollman & William T. Allen, Adelphi Chambers, London). Design provides 170 dwellings, and 14 shops with 46 rooms attached, giving a total of 732 rooms.

11. "Palmam qui meruit ferat" (Mr. William Nicol, 148, Church-road, Islington). Design provides 281 dwellings, or 1,024 rooms. Also, 13 shops with rooms.

12. "Usui Civium"—commended by Referees (Messrs. R. J. Pope & Son, Guildhall Chambers, Bristol). Design provides 182 dwellings, and 14 shops with 50 rooms attached, giving a total of 807 rooms.

13. "Ex sorde dare munditiem" (Messrs. Hornblower & Son, Liverpool). Design provides 248 dwellings, and 16 shops with 48 rooms and cellars, giving a total of 1,097 rooms.

14. "Efficiency with Economy." Design provides for 236 dwellings, and 17 shops with 42 rooms attached, giving a total of 983 rooms.

15. "Au Bon Droit" (Messrs. Habershon & Pite, 38, Bloomsbury-square, W.C.) Design provides 243 dwellings, with 18 shops, and 84 rooms attached, giving a total of 982 rooms.

16. "Deus Nobis" (Mr. Charles W. Harvey, Painsley House, Rusholme, Manchester). Design provides 198 dwellings, and 12 shops, with 60 rooms attached, giving a total of 864 rooms.

17. "Beta" (Mr. John Harris, 8, Gloucester-road, Camberwell). Design provides 157 dwellings, and 13 shops, with 32 rooms, giving a total of 661 rooms.

18. "Strive," commended by referees (Mr. Robert Walker, 10, King's Arms-yard, E.C.) Design provides 244 dwellings, and 24 shops, with 96 rooms attached, giving a total of 1,038 rooms.

20. "Vi et Virtute" (Mr. C. J. Wahab, 77, George-street, Edinburgh). This design not having been received in time was placed out of the competition.

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SIR,—Referring to the notice you have given relative to the awards that have been made with respect to the designs sent in to the above company for competition, we think it right to inform you that the authorship of the one which has gained the second premium is claimed by our client Mr. Francis Butler.

We have written Mr. Bannister Fletcher, whose name appears as the author, to admit the claim of our client, and have given him until to-morrow (Tuesday) to do so, and, should he fail, a Bill in Chancery will at once be filed to restrain that gentleman from appropriating to his own use the work of a brother artist.

We are, Sir, &c.,
SINGLETON & TATTERSHALL.

9, *Great James-street, Jan.* 4, 1875.

## THE NEW INFIRMARY AT LAMBETH.

THE erection of the new infirmary at Lambeth has formed the subject of discussion at a special meeting of the guardians, which has been held this week, in order that Mr. F. Fowler, the architect of the proposed building, might be present to explain the circumstances under which his estimate of the cost of the building was now 50,000*l.*, whereas the original estimate was only about 20,000*l.* The question was discussed at considerable length at the ordinary meeting of the guardians last week. Mr. Shaen strongly objected to the erection of such a large and expensive building, contending that infirmary buildings erected according to the plans originally submitted by Mr. Fowler would be sufficient for all the requirements of the parish. It was ultimately agreed to call a special meeting of the guardians for Monday last to confer with the architect. The meeting was held accordingly, and finally the guardians unanimously resolved to proceed with the erection of the new infirmary according to the plans and designs last submitted by the architect, at a cost of 50,000*l.*

## THE FOOTPATHS IN THE STREETS OF LAMBETH.

IN consequence of a proposal having been made to introduce tar or asphalte paving for the footpaths in Lambeth instead of gravel, a return of the gravelled footpaths was recently moved for by a member of the Vestry. This return has just been furnished, from which it appears that the gravelled footpaths in the streets and roads in Lambeth, dedicated to the parish, contain an aggregate length of 40 miles, and that there are eighty-six streets and roads in which the footpaths are so gravelled. The streets and roads in question are chiefly situated in what are called the outer wards of the parish, viz., Norwood, Vauxhall, Stockwell, and Brixton, and the present rateable value of the property in such streets is 136,559*l.* It further appears, from the return, that to substitute tar-paving for gravel would cost the parish 34,000*l.*; and asphalte, 62,000*l.*; and that to lay 2½ in. York flagging would involve an outlay of 100,000*l.* The question as to which of the above-named descriptions of paving is in future to be adopted as regards the footpaths in the parish, will shortly be considered by the vestry.

## FIRES.

*Destruction of Sawmills at Southampton.*—Early on the 29th ult., a fire broke out in the sawmills of Messrs. Driver, Southampton, utterly destroying the works and ten houses in their vicinity.

*A Manufactory at Manchester on Fire.*—A fire occurred on the 29th ult., at the smallware manufactory of Messrs. Wood & Westhead, Manchester, a large part of which was destroyed. On the arrival of the firemen, the western end of the building, a block twenty-five windows long and ten wide, was found to be in flames, which became a wreck. A large stock was also consumed. The origin of the fire is unknown.

**Bequests to the Royal Academy.**—The death of Lady Chantrey, which took place on 3rd inst., in Brook-street, brings great gifts to the Royal Academy. Also, properly looked at, great responsibilities.

## WALWORTH COMMON SCHOOLS.

THESE schools, which were opened early in the spring, have been erected on a plot of ground that formed a portion of the Walworth Common Estate in Westmoreland-road, which runs into the Walworth-road near the spot where the old Camberwell turnpike gate formerly stood.

As the site is a large one it was determined to build the infants' school one story high, and thus keep it distinct from the rest of the building. This block is divided into two departments. Attached to each are a babies' room, a class-room for the elder infants, and a cloak-room and a lavatory. A large play-shed is common to both departments. The two general infants' schoolrooms are each 25 ft. wide, 41 ft. long, and 22 ft. high to the collar of the roof, where it is ceiled. Windows are placed on all sides, the larger ones divided by stone mullions are fitted with Burt & Pott's iron casements, the lower and upper portions being made to open; the other windows throughout the buildings have sashes double hung with transom-heads, above which are sashes hung on hinges at the lower edges to open as hoppers so as to ventilate the upper parts of the rooms.

Each room has a ventilating opening in the centre of the ceiling leading into the space between it and the slating. Communication is made with the outer air through openings in the gables, covered with perforated zinc. Captain Douglas Galton's stoves are used throughout; these admit warm fresh air at a level of about 7 ft. from the floor.

The boys' and girls' schools are two stories high. The boys' schoolroom is on the ground-floor; at either end are two double class-rooms, separated by sliding partitions, so that practically four class-rooms are available at one time. The girls' schoolroom on the first floor is similarly arranged.

The ground-floor rooms are paved with wooden block paving. The walls of all the rooms have Portland cement dados, finished with a moulded red-brick string-course, about 4 ft. from the floor.

Three rooms, for a care-taker, are situated on the third floor, over the girls' staircase and lavatory.

In the graded school-rooms the windows at the backs of the desks extend to within about 4 ft. 6 in. of the floor, and have a northern aspect. The windows facing the desks are higher up, leaving a large wall-surface below, for diagrams, &c. The upper panels of all the internal doors are glazed, so as to secure thorough supervision.

The seats, which, for the graded schools, are in pairs, are for 1,000 children, namely, 280 boys, 280 girls, and 440 infants; but, allowing 9 ft. superficial of floor-space for each boy and girl, and allowing 8 ft. superficial for each infant, there is sufficient area for accommodating 1,060 children.

The area of the site is about three-quarters of an acre. The buildings occupy about 1,100 yards, leaving about 2,700 yards for the play-grounds, which are covered with Wright's tar paving. As the buildings are only of one and two stories high, and are on the north side, the playgrounds are airy and sunny to an extent rarely practicable in London.

Owing to the ground on which the schools stand having frontages towards three wide roads, the surrounding houses having been very recently built, some consideration had to be paid to architectural effect. The walls are faced with yellow stock bricks; the lintels and window-cills are of Bath stone, with relieving arches of red brick. The windows of the ground floor of the graded blocks have margins of red bricks, and the patterns on the dormers of the first floor are formed with red bricks, which are also used in the cornice under the eaves, with red terra-cotta corbels.

The boundary walls are finished with moulded red bricks, made by Looker, of Kingston.

The large area of the site, and the great length of the boundary walls (about 800 ft.), together with the fact that the building is for the greater part only one story high, have slightly enhanced the cost, which has been about 9,300*l*. This amount included stoves and gasfittings.

Messrs. Henshaw & Co. were the builders; Messrs. Henry Jarvis & Son, the architects.

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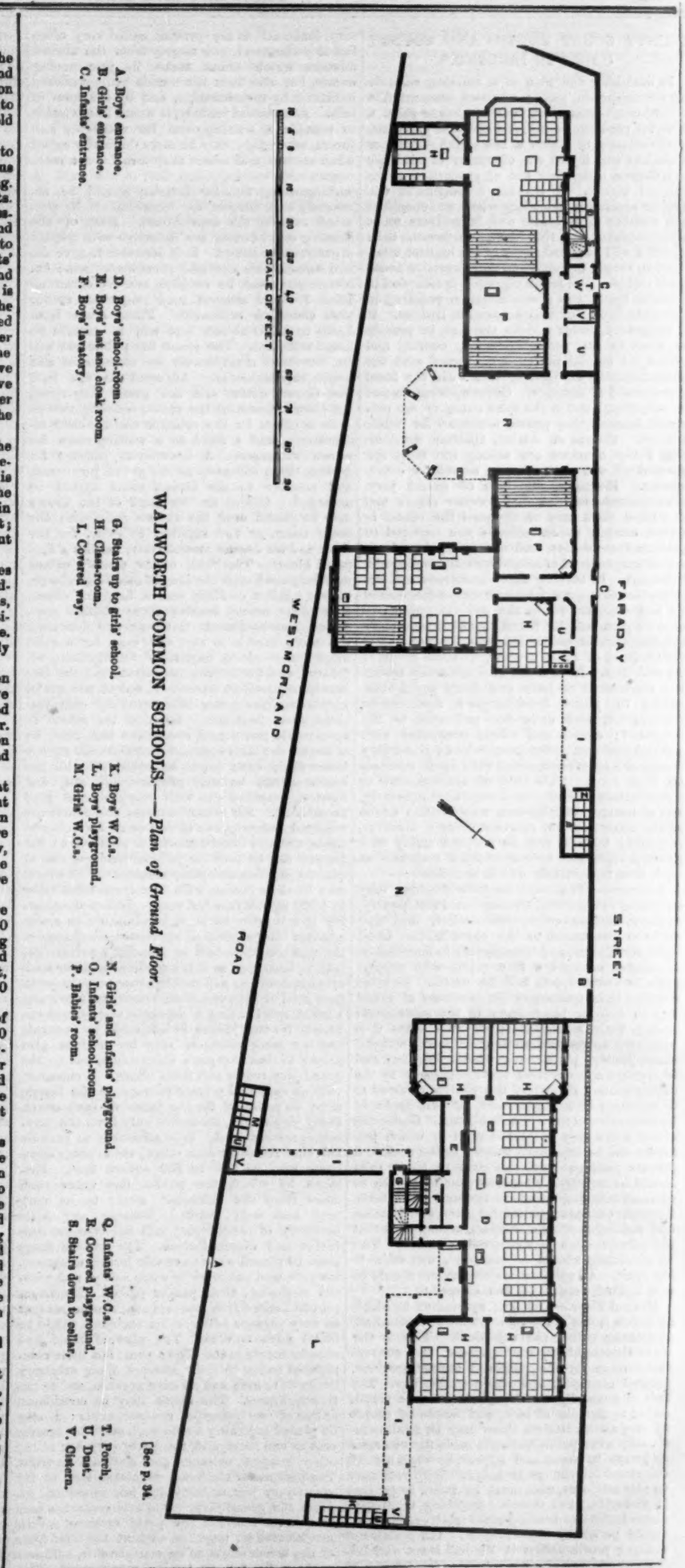
**New Collieries.**—Over fifty new collieries are being sunk in Glamorganshire, and in several instances nearly 100,000*l*. have been spent.




WALWORTH COMMON SCHOOLS.—*Plan of Ground Floor.*

[See p. 34.

## COUNTY COURT HOUSES AND COUNTY GAOLS IN IRELAND.*

IN designing the plan of a building suitable for the important public business transacted in county-court houses, an architect has to solve a complex problem, or rather a series of problems, in the solution of which a few slight defects or omissions will injure the character of his work in a degree altogether out of proportion to its general merits. A careful arrangement will appear absolutely necessary when one considers the number of interests and individuals to be accommodated, and that among the persons to be satisfied will be found many of the highest intelligence, versed in criticism, and sensitive about their rights. The following paper is intended to describe briefly the accommodation required in the court-houses of assize towns in Ireland. It is obligatory, under various statutes, to provide in court-houses assembly-rooms, courts, and offices for special purposes connected with the administration of justice, and with the fiscal government of counties. Other apartments and offices, though not in the same category, are provided because they proved necessary for public service. Courts of Assize, Quarter Sessions, and Petty Sessions are among the most important of one class of uses served by court-houses. Elections, meetings of grand jury, presentment sessions, &c., another class; and to a third class may be assigned the offices in which certain public officials are required to perform their duties, and in which public documents are prepared or lodged for safe keeping and reference. In serving these numerous and important uses, a court-house becomes frequented by and well known to the general public; so that its plan will be found to affect materially the despatch of public business, the comfort or convenience of many persons, and the credit of its architect. It is usual and, generally speaking, convenient to have two floors and a basement; to place housekeeper's apartments, store-rooms, and cells for prisoners in the basement; courts and offices connected with judicial business on the ground-floor; grand jury rooms and offices connected with fiscal business on first floor. This kind of arrangement or classification will be found expedient generally, but of course modifications may become advisable, according to circumstances: however, assuming that it can be adopted safely as a general rule, the accommodation required on each floor respectively will be as follows:—

*Basement.*—The court-keeper's dwelling may consist of living-room, kitchen, bed-room, pantry, scullery, lumber-room, coal-cellar, &c., and stairs to give access to the upper floors. Good light, ventilation, and sewerage are indispensable. In an area or yard a force-pump with supply-pipes to water-closets will be useful. In some counties it is customary for members of grand jury to dine or lunch daily in the court-house during their attendance; in such cases it is necessary to provide another kitchen, servants' room, pantry, plate-room, wine-cellar, &c., and to arrange a convenient service passage to the dining-room. However, the custom referred to is becoming disused generally, and will probably be altogether extinct in a few years. Under the crown court may be placed cells in which prisoners can be kept until wanted in the dock. A private passage from the gaol to these cells should be arranged wherever practicable, so as to avoid bringing prisoners through the streets. Separate cells are required for males and females, and waiting-rooms for warders, arranged so that the prisoners can be continually watched. Two water-closets should be provided, and stairs to the dock. All cells or waiting-rooms should be well lighted, ventilated, and warmed.

*Ground Floor.*—The first apartment to which attention is due is the great public entrance-hall, sometimes called the shire-hall. This is the main thoroughfare, waiting-place, and conversation-room for the public at assizes, sessions, general elections, and other gatherings. The hall is generally a noisy place at such times, owing to the din of talk, and bustle of people moving about, though there may be a lull occasionally when proclamation is made for witnesses or jurors to come and appear, or when a stern command for silence is heard. With reference to this noisiness, care must be taken to prevent it disturbing the courts. Anything tending to cause indistinct hearing while trials are going on would be wholly objectionable. The practice of making proclamation in the hall is not satisfactory, inasmuch as the persons called very often fail to understand, not merely from the absurd mistake which criers make in pronouncing names, but also from the sounds being rendered indistinct by reverberation, and by the hum of talk. As a partial remedy, it would be advisable to provide a waiting-room for witnesses and jurors, where they may be more distinctly called when wanted, and where they may have a more comfortable waiting-place than in the hall. A waiting-room, &c., for females should be arranged; and latrines for males should be provided outside the court-house. Most of the existing court-houses are defective with respect to such conveniences. It is desirable to give the hall considerable size and some stateliness; excessive size must be avoided, and for obtaining effect I would suggest good proportion rather than elaborate ornament. Floor space from 1,000 to 1,500 square feet will in general be found sufficient. The space for public use will be increased considerably by ante-rooms and minor thoroughfares. Adjacent to the hall, the Crown court, and the grand jury-room, are placed rooms for the crown solicitor, two *en suite* as offices for the solicitor and his clerk respectively, and a third as a waiting-room for crown witnesses. A convenient passage for getting these witnesses to the grand jury-room, and another to the Crown court should be arranged. Offices for the clerk of the Crown may be placed near the Crown solicitors; one large room, or two smaller, *en suite*, for the clerk and his deputy respectively, besides a fire-proof closet. The clerk of the peace's offices may be placed near the Record court; one large, or two smaller *en suite*, and a fireproof closet. Five other rooms, besides those already mentioned, may be placed on the ground floor near the hall; that is to say, one each for sheriff, magistrates' clerk, barristers' robing-room, attorneys, and for holding consultations; the last is seldom provided separately, one of the grand jury committee-rooms being used for consultations when required. None of the offices or apartments mentioned, except the hall, need be of large size; floor spaces from 300 to 400 square feet will, in most cases, be sufficient. All the rooms should be well proportioned, and well lighted, provided also with fireplaces and good ventilation. For assize business two courts are required; namely, the Crown court for criminal trials, and the Record court for civil cases; the former will be used for judicial business also at quarter sessions and petty sessions. Both courts may be alike in size, with floor-space from 1,350 to 1,500 square feet for each. Before considering how to plan them, it is advisable to settle whether the judges shall approach their chambers through the shire-hall or through a private entrance, inasmuch as it is expedient to make such arrangements as will enable those personages to pass into, or between, their chambers in private. I am of opinion that a separate and private entrance for the judges is advisable in general; but the same entrance may be used to give access to court-keeper's apartments, and to the grand-jury rooms and fiscal offices. A chamber, with an easy and private passage to the bench, must be provided for the judge of each court. Petty jury-rooms, accessible only from the jury-boxes, are required. It is advisable to provide two such rooms for each court; the average floor-space may be 200 to 250 square feet. Passages by which the public can enter each court from the shire-hall ought to be very easy and well marked, because any little intricacy of insufficiency will surely cause confusion and dissatisfaction. The various doors must be placed so as to enable jurors, witnesses, lawyers, and audience to reach easily, and without confusion, their proper places. Barristers are often called from one court to the other, so that an easy passage between, for their use, would be found advantageous. The plan of seats and compartments in the Crown court is a little complicated owing to their number, their arbitrary limits as to area and relative position, and to the thoroughfares. The bench may be considered as one of the principal compartments: it may be placed adjoining a side wall, with the witness seat at one hand, and the petty-jury box at the other, lawyers, prisoner, and audience in front. The position of the bench regulates that of the grand-jury box, as the judge has to see and address the grand jury. When the court is used at quarter sessions and petty sessions several magistrates sit together, so that the floor-space of the bench ought to be considerable, sufficient perhaps for ten or twelve magistrates. The clerk of the crown sits in front of the bench, facing the audience. His pen should be sufficiently near the petty jury and the witness to allow the clerk to perform conveniently his duty of administering oaths to jurymen and witnesses. The floor of this compartment should be about 2 ft. under that of the bench, so that its occupant, when standing up, can receive instructions from or confer with the judge. At quarter sessions the seat will be occupied by the clerk of the peace; at petty sessions, by the magistrates' clerk. The petty jury must be placed so as to hear and see distinctly witness under examination, prisoner, judge, and examining counsel. The jury-box must contain accommodation for twelve men sitting, besides space in which another twelve may stand, as it sometimes happens when one jury retires to consider its verdict another will be empanelled to try a new case. Therefore, when the old jury comes out again there should be space for it to stand without incommoding the new jury. The witness seat should face the jury with the judge at one hand and examining counsel at the other. It is important to place the witness so that his evidence and demeanour can be well observed, not only by judge and jury, but also by the prisoner. Several rows of seats for counsel and attorneys may be placed facing the judge; the first and second rows should be given respectively to the attorneys and council engaged in a case, within the space surrounded by attorney's seat, witness, clerk of crown, and the jury, there ought to be a table upon which models or other bulky articles may be displayed when required. A compartment for reporters is best placed between the witness seat and the bench, and partly facing counsel. It is usually most convenient to place the dock nearly central in the court, and to arrange it so that the prisoners shall have a full opportunity of seeing the witness, and of hearing everything said in evidence; too much stress cannot be laid on these points. Standing-room for ten or twelve men is required, besides seats for two gaolers. In front of the dock, but outside it, there should be a vacant space in which persons who have to appear in discharge of bails may stand. Seats for one or two policemen or bailiffs should be placed at each side of the dock, and there should be one for a judge's crier placed where he may have a good view of the court and of the jury particularly. The crier has generally to wait on the judge as a private servant or messenger, so that it will be useful to provide for him some ready way of approaching the bench. A box for the sheriff should be placed near the bench, perhaps behind the reporters, and in the same neighbourhood some seats for magistrates and county officers in attendance at assizes. Tiers of seats for the general public, and for jurors and witnesses who wish to wait in court, may be placed behind the dock, partly on ground-floor and partly on galleries, but it is advisable as a general rule to dispense with galleries for public use. A special compartment or gallery must be provided for the grand jury, to contain seats for twenty-three; it must be placed so that its occupants can be conveniently addressed by the judge. An isolated passage to the grand-jury room will be required. The arrangement of the record court need not differ materially from that required in the crown court, after omitting the grand-jury box and the dock. In this court the judge's registrar will occupy the space assigned in the other court to the clerk of the crown; and the space corresponding to the dock may here be given to seats for suitors waiting.

*First Floor.*—It is particularly necessary to give convenient access to the first floor. Broad and easy stairs for public use should lead directly from the shire hall to the grand jury room. Another less important, may lead from the private entrance and give access to the fiscal offices; and a third may lead from the crown witnesses' waiting-room. On the first floor it will generally be convenient to have the grand-jury room, in which public sessions of grand jury are held, committee-rooms, offices for county treasurer, grand-jury secretary, and county surveyor, a waiting-room, cloak-room, one or two lavatories, &c. In some counties, as before remarked, it is customary for the members of the grand jury to dine or lunch in the court-house; and where this happens a suitable dining-room, with accessories, must be provided. The grand-jury room is the most important apartment on the first floor, and of course it should be well proportioned, amply lighted and ventilated, and provided with sufficient fireplaces. The necessity for thorough ventilation will be understood when it is remembered that large crowds

* By Mr. John Brett, C.E., County Surveyor of Kildare, as elsewhere mentioned.

assemble and remain for hours in this room during public sittings; floor-space from 600 to 900 square feet is required. During the transaction of fiscal business, part of the room is reserved for the grand jury and county officers, but the other part is left open to the public. When the grand jury is engaged in finding bills of indictment none are admitted but the witnesses brought in to be examined on the bills. When in full session for fiscal business the grand jury consists of twenty-three members, one of whom presides as foreman; they sit round a table, hear reports or statements from officials or others authorised to address them, examine witnesses about fiscal matters, and finally they conduct, inquire into, and determine all the fiscal business within their jurisdiction in open court. I am of opinion that it is most convenient to place the grand jury round a table of horse-shoe shape; witnesses and others necessary to be heard, being brought to the open, can easily address the jury, and be seen by each member.

Outside the reserved space there should be seats for grand jurors waiting, or for gentlemen of distinction who desire to attend the proceedings; behind these, but enabled to see and hear everything, the general public may be placed. It will be necessary to provide at least two rooms for committees of grand jury; floor-spaces from 300 to 400 square feet will be sufficient. A small waiting or ante-room would be useful. Under a recent Act of Parliament the duties separately performed by the grand-jury secretary and the county treasurer are henceforth to be performed by the grand-jury secretary alone when the existing treasurers retire, and in some counties the change has already taken place. Under the new system the secretary's offices should consist of two rooms *en suite*, together with a good-sized fireproof closet for preserving papers in his charge. Where the old system prevails the treasurer requires one large room, or two smaller. The county surveyor may be provided with one large room, or two smaller *en suite*. In the outer offices on each floor a counter should be set up, leaving sufficient space at one side for persons calling on business, and at the other for clerks, desk, presses, &c. All committee-rooms, offices, waiting-rooms, fireproof closets, &c., must be provided with fireplaces, good light, and ample ventilation.

Before concluding this imperfect sketch, I wish to remark that it is very important to provide for amply ventilating and warming the courts; not merely by unobtrusive contrivances, but also in some degree by others of an obvious kind. The visible existence of a practical sash, a stove, or a good open grate will give satisfaction even though their practical utility be comparatively little. I am of opinion that a fresh-air chamber with an inlet for the outer air should be contrived under the floor, and that numerous small holes should be pierced through the floor into the air-chamber. I would allow the foul air to pass through the ceiling into a space above it having outlets in the roof; and I should like to have a flue enclosing a gas-jet or other contrivance to cause an upward current of foul air. By placing in the usual way hot-water or hypocaust pipes, in the lower air-chamber, the fresh air can be warmed before ascending through the floor.

## SOMETHING ABOUT CHURCH BELL-HANGING, AND THE VIBRATION OF BELL-TOWERS.

I WISH to make a few remarks on the hanging of church bells, and the vibration of bell towers.

"Notwithstanding what has been urged by myself and others in other places, on the great danger of allowing the bell-frame or cage to touch the walls of the tower, I believe that the danger is overrated. But if there be any, it arises solely from *wedging* against the walls; and from the forcible and alternate hammerings of the frame if it gets unsteady; although, if the cage can be set *several inches* or feet away from the wall, whether it gets rickety or not, little damage can arise, though the ringers would have the harder work. But, if of necessity the cage is fixed within an inch or less of the walls, and it gets rickety and full of life during the ringing, battering away, first one side and then the other, the danger is most imminent; and if *wedges* are inserted by an unskilful workman, the evil is increased by the downward and expanding tendency of the wedge. In such a case, I am free to confess, that pieces of timber fixed to the cage and *butted square* and *hard* up against the walls, so that cage and bells may all oscillate together in one compact body (like as a person in a rolling boat would try to keep himself steady by taking tight hold of the sides) little or no danger will occur to the tower, provided the walls are of thick and substantial masonry; but if they are flimsily built, and the bells are hung high up, and in a high cage, the vibration of the tower would be so great that in some mysterious way the bell-cage gets so affected that it is found from experience a difficult thing to keep the bells up when ringing, to say nothing of the damage done to everything in connexion; therefore, in such a case, the cage must be kept clear of the side walls. After all, do what you will, it is perhaps impossible to prevent the vibration of a tower, unless it is constructed with deep-faced buttresses on all sides, and therefore great care should be taken that the vibrations be not checked; but that they oscillate steadily like a pendulum. Scientific men have not yet determined how much the vibrations are caused by the soniferous waves from the sound of the bells, as well as by their motion.

Bell-hangers may say, that if the bells are made to swing at right angles to each other, one will counteract the other, and the cage will be kept steady; but I am certain that is not the case. The cage may be a little stiffer from the cross-bracings which it involves; but it is contrary to all mechanical principles for two forces acting at right angles to neutralise each other at all. The only way for bells to swing and counteract each other is, by making them all swing in directions opposite to one another: that would be, all north and south, or all east and west, according as the tower may be buttressed, and then the bells would be pulled to follow each other *oppositely*; but this would only be in round-ringing; for when bells go off into *changes*, then it may be that all the bells, just for one blow, would swing the same way, though the direction of their motion would be changed by the very next pull. I have seen several old towers (Lymstone is one, and the bells badly hung) in which the timbers are so abutted without wedging, and no damage done, and the tower is not a low one. It is so at Bitton, my old parish; and in the tower of Clyst St. George all the original timbers were hard up against the walls; indeed, there was evidence, from the pinning, that the old cage was set up before the walls were raised, and that they were built close against it." *

P.S.—It is now more than twelve years since the above remarks were made, therefore my judgment ought to be more matured; be that as it may, during that time I have visited about 600 towers, in many of which I found the upper bell-timbers walled in, and wedges applied in many cases; but I have not found any instance of a tower being damaged thereby, provided the masonry was sound and substantial.

Very lately I was in the noble tower of l'Abbaye Auxhommes, at Caen, during the swinging (I cannot call it ringing—the bells being worked by the foot without wheel and rope) of two heavy bells for service, the cage of massive timbers was insulated, but the motion was so great as to produce the sensation of sea sickness to one of my companions, and the oscillation of the lofty tower with its glorious spire was greater than I ever before witnessed, but without any apparent damage.

Therefore, after mature consideration, I have come to this conclusion—that it is not at all unsafe or damaging to the tower—and better for the ringers that the cage should be butted hard and tight against the walls, and as the vibration or the rocking of the tower cannot be prevented—no harm whatever will arise from the same, provided there are no defects in the walls from old settlement or other cause, and that the whole building is of compact and solid masonry; the elasticity in such a building is so extraordinary, whether a tower, spire, or even a bridge,† that it is sufficient to counteract the disintegration of the materials of which it is composed. Substantially the same opinion is expressed in Sir E. Beckett's "Treatise on Clocks and Bells," p. 363, of 6th edition.

Well-constructed towers vibrate from the very basement. At Abingdon, Berks, there is a spur stone against the tower, and when the bells are ringing, boys amuse themselves by putting their knives between the stone and the tower, to be pinched as the vibrations go on.

I would here take occasion to say that in old cages it will be found that the timbers do not fit close down on the shoulders of the braces, owing to the shrinking; and arising from the mortises and tenons being pinned together. It is thought better not to pin any of the tenons, but to bolt the whole cage down to the beams below: in this way the bolts may be screwed tighter from time to time as the case may require: the bolts had better be put in bracingly, that is, not perpendicularly.

H. T. ELLACOMBE, M.A., Oxon, F.S.A.

* From a paper read before the Exeter Diocesan Architectural Society, September 23, 1863, by the Rev. H. T. Ellacombe, M.A., F.S.A., Rector.

† A new bridge at Langholm, N.B., was shaking owing to an unusually high flood. Telford, who lived near, was sent for—his reply to the builder's wife, who was alarmed for the consequences, was "Never you mind, Tibby—there's no fear o' the brig: I like it a' the better that it shakes—it proves its wool put thegither."—The bridge has stood the furious shakes of nearly a century unimpaired. See Smiles's "Lives," vol. 3, p. 302, under *Telford*.

## HENRY EDWARD KENDALL, ARCHITECT.

WE have again the sad duty to record the death of one of the oldest members of the profession, who may, in fact, be termed the Nestor of architects, Mr. Henry Edward Kendall, deceased the 4th day of January, 1875, in his ninety-ninth year! His father was a banker in York, where the subject of our notice was born on the 23rd day of March, 1776. He was pupil of Thomas Leverton, one of the surveyors of the Government Board of Works, and of the celebrated Mr. Nash. From the state of architecture in those schools at that time, the elements of taste obtainable were not of the highest order; but Mr. Kendall had considerable fancy and play of invention. From the offices of those architects he went into the Barrack Department of the War Office, which appointment he held for many years; until, in 1823, he left it to take the duties of surveyor to the district of St. Martin-in-the-Fields and St. Anne, Soho, and which he held for above half a century. He was one of the earliest promoters of the Royal Institute of British Architects, originally suggested by his son, and the early meetings of the committee were for a considerable period held in the rooms of the father. He practised largely as an architect, and entered frequently and successfully in competitions.

Among his works may be named:—Kemp Town, Brighton; Rosherville Town, Pier, and Gardens; mansions, wholly or in part, for the Earls of Bristol, Egremont, and Hardwicke, for the latter of whom he also built a fine conservatory at Wimpole. He erected the house of Mr. Kemp in Belgrave-square, and Chidingstone Castle for Mr. Streatfield; and a mansion for Sir Thos. Whichcote, bart. His also were the churches of St. George, Ramsgate; Trent, Middlesex; Bantry, Ireland; and Clagate, Surrey; besides several parsonages and schools. He was architect of the workhouse at Uckfield, Sussex; and of Melksham, Wilts. He obtained the first premium for a Gothic design for the chapel to the cemetery at Kensal-green, and the second premium for an Italian design; but he missed the building, as he with very proper spirit refused to carry out the design of Sir John D. Paul, the chairman of the company, who competed, and required his own design to be executed! He built the Sessions House and Gaol at Sleaford, of the former of which there is a fine view by the old Augustus Pugin, his friend. And he erected also the Sessions House and Prison at Spilsby, Lincolnshire, and the gaol at Spalding; he also made a design in the competition for the Houses of Parliament; and was a frequent exhibitor at the Royal Academy, many of the drawings being from the brilliant pencil of the elder Thomas Allom.

He was a man of refined, gentlemanly manners, noble and generous in disposition, tall and handsome in person, and had a winning address, which gained the esteem of all with whom he associated. He was a keen sportsman, and used in former times, each autumn, to take his gun and his dogs for a few weeks' sport. On one occasion his gun burst, so that his left hand was shattered, and he lost his thumb; but this did not cool his ardour for shooting.

He has left a widow; his son, of the same name, district surveyor for Hampstead; and two daughters, Mrs. Covey, the wife of Dr. Covey, and Mrs. Lewis Cubitt, all three the fruit of his first marriage. A daughter of Mrs. L. Cubitt is the wife of Mr. Edgar Bowring, late member for Exeter. Thirteen grandchildren and twelve great-grandchildren also survive him.—T. L. D.

WALWORTH COMMON SCHOOLS, WESTMORELAND ROAD.—MESSRS. HENRY JARVIS & SON, ARCHITECTS.

[See p. 31, *ante*.

## THE ANCIENT TOWERS AND SPIRES OF GLOUCESTER.

GLOUCESTER is rich in ecclesiastical structures, and this is well shown by the drawing we have engraved (made by Mr. Frederick S. Waller, of Gloucester), which represents the cathedral, and the towers and spires of the other churches of the city, contrasted with each other. The buildings are drawn to the same scale, and as they are all taken on the same plane, and from actual admeasurements, as Mr. Waller tells us, the exact relative sizes and heights of each can be seen at a glance.

With the exception of the lower portion of the cathedral tower (not seen in the drawing), the oldest of these towers is that of the Church of St. Mary de Lode, the lower stage of which is fine Norman work. The upper stage has been much mutilated, and the parapet and pinnacles are modern, and very inferior.

The tower and spire of the Church of St. Nicholas incline very perceptibly towards the North, and about eighty years ago the top of the spire was removed, and the present small parapet and pinnacles were added. The angle pinnacles of the tower are gone. The effect of this tower and spire in its original condition must have been very fine.

The towers of the churches of St. Michael and St. Mary de Crypt, are of a design and character very similar to each other, especially in the details, leading one to the belief that they must have been designed by the same architect. The pinnacles of the former have been removed.

The tower and spire of the Church of St. John calls for no special remark, and of the other buildings which compose the lower part of the drawing, consisting of the deanery, the western gateway to the close, the chapter-room, the infirmary arches, the little cloisters, &c., little more need be said than to draw especial attention to the two first-named, the deanery, and the western gateway, as being peculiarly interesting specimens of Transition and Early English work, of which latter there are very few remains in the city of Gloucester.*

REFERENCES.

A. St. Nicholas Church.
B. St. Michael.
C. St. Mary-de-Crypt.
D. St. John.
E. St. Mary-de-Lode.
F. F. Deanery.
G. Chapter-house.
H. Chapter-house Library.
K. Gateway in St. Mary's-square.
L. Ruins of the Church of St. Catherine.
M. Remains of the Infirmary.

## INHUMATION AND CREMATION.

THE following notes are intended as a short sequel to "Churchyards and Epitaphs" which appeared recently in the *Builder*. At the present time we know but little regarding the funeral customs of the early ages of the world. We may judge from the simplicity of manners and primitive habits of the people of the Patriarchal ages that burial somewhat similar to that practised in our own day would be adopted by them. When we come to the days of Abraham,—sepulchres and vaults, capable of containing whole tribes, were in ordinary use. It is stated in the book of Genesis:—"And Sarah died in the land of Canaan; and Abraham spake unto the sons of Heth, saying, I am a stranger and a sojourner with you: give me a possession of a burial-place that I may bury my dead out of my sight." "Out of my sight" would seem to be a superfluous expression, but it is not so; the Egyptians buried their dead, but not out of sight, as will be shown. The sons of Heth replied to Abraham, "In the choice of our sepulchres bury thy dead;" and Abraham answered, "If it be your mind that I should bury my dead out of my sight, hear me, and entreat for me to Ephron, the son of Zorah, for the cave of Macpelah." The bargain was closed with Ephron for four hundred shekels of silver. Abraham buried Sarah in the cave, in which, in due time, he was himself interred, and many of his descendants. In later ages the Jewish method of interment appears to have been to wrap up the spices with the clothes in which the body was enfolded. The larger the quantity of the spices employed the greater the honour was considered. The bodies were then deposited in natural or artificial caves, uncoffined, and the effluvium arising from advancing corruption was partially counteracted by the aromatics.

Crossing over into India we find that its inhabitants from the earliest age of history, consigned their dead to the funeral pile, which was erected in the neighbourhood of the town or village. The corpse being placed on the pile the officiating Brahmin offered up a prayer, the fire was kindled by the nearest relative of the deceased, and the ashes were deposited in urns or cast into the neighbouring stream or river. Turning to Egypt we find that the national belief in the immortality of the soul shaped out their method of disposing of the dead. They believed that when the body is dissolved, the soul enters into some other animal which is born at the same time, and after going the round of all the animals that inhabit the earth, it again,

* If Mr. Waller's example should lead some of our readers to make similar views of other of the public buildings in our ancient cities and towns, we shall be glad to hear of them.

THE ANCIENT TOWERS AND SPIRES OF GLOUCESTER.

after a circuit of 3,000 years, enters the body of a man who is then born. This belief in the transmigration of souls stimulated them to the most diligent inquiry as to the best manner of embalming, and extraordinary pains were taken to preserve the body from putrefaction, in the hope that the soul would one day be permitted to join the body it had previously quitted. The bodies were then conveyed to the sepulchres, where they were deposited—not *out of sight*, but in rows along the sides of the cave. The patriarch Jacob was buried after the Egyptian fashion, "and forty days were fulfilled for him, for so are fulfilled the days of those who are embalmed." Joseph was also embalmed and placed in a coffin, and his remains were afterwards deposited in the cave of Macpelah.

There is one marked instance of cremation in Jewish history. On the death of King Saul on the battle-field of "bloody Gilboa" the Philistines nailed his body in derision to the walls of Bethshan, "and when the inhabitants of Jabesh Gilead heard of what the Philistines had done to Saul, all the valiant men arose and went all night and took the body of Saul and the bodies of his sons from the walls of Bethshan, and came to Jabesh and burnt them there; and they took their bones and buried them under a tree at Jabesh." There are a few passages in the Old Testament that point obscurely to other cases of cremation. After Asa's death "they made a very great burning for him," and after the death of wicked Jehoram "his people made no burning for him like the burning of his fathers." These passages may probably find their proper explanation in the funeral custom of the Chinese, who after embalming their dead and depositing the body in a coffin, place it in a room decorated with white tapestry, where it remains for months, sometimes for years, during which burnings are made time after time of incense and aromatics in honour of the deceased. In the empire of Japan cremation is carried out in the most refined manner, the funeral pile is composed of sweet-scented wood; and incense is thrown into the flames to perfume the atmosphere. On the following day, the bones and ashes are collected into an urn, which is placed in the ancestral sepulchre.

The Romans in the disposal of their dead used both inhumation and cremation. Numa Pompilius, their second king, on his death-bed gave orders for his body to be buried in a stone coffin, "contrary to the custom of the time." The Romans, according to Cæsar, derived the custom of burning their dead from the Gauls. Under the Emperors the custom of cremation became almost universal among the Romans, but was afterwards gradually discontinued on the development of Christianity, and at last fell into disuse about the end of the fourth century.

Taking a rapid glance at other funeral ceremonies, we find that the Otaheitians lay their dead on a morai, a species of temporary shed, where the flesh is suffered to putrefy. The body, after remaining about five months, is taken down and the bones are then scraped, washed, and buried. The Parsees expose their dead to vultures and other birds of prey. The natives of Guiana bury their dead unshrouded, and after the flesh has decomposed, the bones are taken up and distributed among the nearest relatives. In the Canary Islands a species of mummy, called a guanche, is frequently met with; and at Teneriffe several specimens have been discovered, showing that a practice similar to that of Egyptian embalmment must at one period have been in use among them. In the uplands of Peru animal substances are dried up by mere exposure to the air, and human bodies are there found wrapped up in the skin of the vicuña. Many other peculiar funeral ceremonies might be referred to; but by adding the simple statement that in our country we have abundant evidence that cremation and inhumation have been in use from the earliest ages, sometimes contemporarily, enough has been said. And now for the moral of this Dryasdustic discourse. About forty years ago a writer in favour of extramural burial wrote "Why should we deposit the remains of our friends in loathsome vaults, beneath the gloomy cells and crypts of our churches, where the human foot is never heard save when the sickly taper lights some new guest to his appointed apartment? Why should we measure out a narrow portion of earth for our graveyards, in the midst of our cities, and heap the dead upon each other, with a cold, calculating parsimony disturbing their ashes and wounding the sensibilities of the living?" The wishes of the writer have been carried out. The churchyards of towns and cities have been closed, and cemeteries have taken their place; but these suburban burial-places have been gradually encroached upon, and in some instances surrounded, by human habitations, and have been so constructed that, like the churchyards, they have become nuisances, but on a greater scale, poisoning not only the air, but the water of their neighbourhood, and making themselves outposts for the dissemination of pestilence. Cremation is a moot question, but the time, if not already come, is coming shortly, when some means must be not only adopted, but enforced, for disposing of the dead which will neither injure the health nor wound the sensibilities of the living.

## ARCHITECTURAL ASSOCIATION OF IRELAND.

AN ordinary general meeting of the Association was held last week, at 212, Great Brunswick-street, Dublin; the President, Mr. W. M. Mitchell, in the chair.

The following report on the sketches submitted by the members of the Class of Design was read:—

"Having carefully examined these designs, we have decided upon awarding the first place to Mr. Robert Browne, for the great number of his drawings, and for the thought and originality displayed in them. We award the second place to Mr. T. H. Longfield, principally on account of his beautiful design for a rose-window in the Italian Gothic style.

It affords us much pleasure to be enabled to bear testimony to the general excellence of the designs submitted. They afford very gratifying evidence of the talent and assiduity of the members of the class, and warrant us in anticipating a still further degree of excellence in the work of the present session."

The treasurer was authorised to pay Mr. Browne the sum of two guineas and a half as prize for his sketches.

A ballot then took place, when the following were elected members:—C. Morley-Bridgeford, jun., W. L. Falkner, Geo. W. Miller, Saml. Walsh. Messrs. Wilmot and Longfield were scrutineers.

Mr. J. H. Brett, C.E., then read a paper "On County Gaols and Court-houses," part of which we print.

Mr. Thomas Drew said that Mr. Brett in his paper had given a great deal of valuable information on a subject which did not occur every day in an architect's practice, and ventured to say that nine out of ten architects knew very little about the requirements of a court of justice. He thought that the courts of Ireland were invariably bad and complicated. The simpler the plan the better, as in the Manchester Assize Courts and new Courts of Justice. It occurred to him that the amphitheatre is the best form for a court, as it is the best way to group a number of people so that they can see and hear a central object, such as a criminal in a court of justice. The time that the Law Courts question was being discussed, the central hall excited a great deal of interest, and almost all agreed that it is essential to have such a hall for witnesses, suitors, and idlers. In the Dublin Four Courts, Gandon planned a fine central hall with the courts opening into it, so that the interior of all the courts were visible from the hall. This, as may be supposed, did not last long, and the open ends were built up. A private entrance for the judge is desirable, but when opening the assizes it is usual for him to enter by the principal door. Mr. Drew also agreed with Mr. Brett that the horse-shoe shape is the best for the grand jury-room.

Mr. T. H. Longfield said that cells without light are objectionable and reprehensible, and that they ought to be abolished; that man should not take from his fellow man, even though he be a criminal, the divine light of day.

Mr. C. J. Doran, in proposing a vote of thanks to Mr. Brett, thought that the semicircular plan recommended by Mr. Drew objectionable, as there is great difficulty in rendering such a room acoustically perfect. He was sorry that public buildings in Ireland are generally spoiled by the penury of those entrusted with their sanction, and that the architect is generally fettered with monetary considerations. Although the Manchester Assize Courts are considered excellent, yet they are open to improvement.

Mr. Drew, replying to Mr. Doran's observation said that in alluding to the semicircular plan, he meant more the arrangement of the seats than the plan of the rooms, which might be either a square or a parallelogram. He received the vote of thanks with great pleasure.

Mr. J. J. O'Callaghan agreed that the semicircular plan of seats was best, and was glad that the Courts of Justice would have a central hall.

The Chairman, in putting the vote of thanks, which was carried unanimously, said he was engaged in converting a prison in the South for the separate system, and that the railings round the galleries were made higher, to prevent the prisoners committing suicide.

## A POLITICO-ECONOMICAL NIGHTMARE.

THIS was engendered not so much by sensual indulgence in mince-pies, as by Mr. Cole's letter (in *Builder*, No. 1660, p. 982), capped by the address of the president of the Institution of Surveyors (*Builder*, No. 1662, p. 1029).

Multiply London Bridge by to-morrow morning, square the product, deduct the "Thousand and One Arabian Nights," and dissolve the remainder in the spirit of one of Claude's landscapes: then tell me the result, if you can.

The president of the Institution of Surveyors acknowledges the existence of a sentiment,—while resisting it on economical grounds,—inimical to the spread of enclosures over open lands. Mr. Cole, also on economical grounds, recommends national investments in objects of fine art. Each teacher has scholars and adherents. But, if rightly analysed, will not the intensity of the sentiment with which either party esteems the teaching depend really on something much nearer home to the feelings than the figures which each teacher sets down on paper? He who admires pictures, applauds Mr. Cole. He whose private estate is aggrandised by an Enclosure Act, agrees with Mr. Huskinson. Each reads between the lines of the calculation; and if the whole Christmas pudding of ideas, wishes, and feelings were dissected, it might seem some such farrago as we placed next the heading of this letter.

Confessing to much more sympathy with Mr. Cole than with Mr. Huskinson, I am going to try my hand at a bit of political economy. I commence at an earlier point than does Mr. Cole,—the subject of the manufacture of paintings. I begin with the purchase of materials at the colour-shop. Suppose (a liberal supposition, perhaps) that a landscape by Turner consumed 5*l.* in materials; then by the admixture of, let us say, 195*l.* worth of Human Soul, the selling price of the compound becomes 200*l.*; after which, let Mr. Cole's further calculations of augmented value be brought to bear. Did high farming or turnip husbandry ever do more for augmenting value than this manure of human soul? Why, it is some 4,000 per cent.

And how is the 195*l.* worth of human soul ever to be reared to the perfection we have seen it to attain in past time, unless the painter's sketching-grounds are left intact; unless his freedom to wander at his own sweet will is secured to him; unless the road that he travels still continues to present the varied widths which used to diversify it, instead of being narrowed to the Act of Parliament 30 ft.?

We said 195*l.* worth of human soul. Whose soul? Not alone the painter's. The painter must have a purchaser. The purchaser must have a host of amateurs to sympathise with him and congratulate him on his acquisition. All these are sharers in the 195*l.* worth of human soul. All ought to have their roving grounds, as the painter must have his sketching-ground, with picturesque features left intact, to keep alive their enthusiasm.

Illogical as it may be, it would seem as if even in a case involving the grave precision of legal proceedings, it still seems quite natural to mix up incommensurable things like sentiment and value, present wants and antiquated sources of supply, London Bridge and the Arabian Nights. Witness that imbroglio in which the spirit of the age has involved Epping Forest. Æsthetic sentiment *plus* the City of London's money, multiplied into one of those old-world arrangements by which the peasant managed to subsist on the land of his birth before the parish allowance became a customary source of income to him, or the workhouse the recognised home of his old age; the mixture stirred up in the same cauldron, with enough hatred, malice, and uncharitableness to make it boil over.

> "Swelter'd venom, sleeping got,
> Boil thou first in the charmed pot,
> For a charm of powerful trouble,
> Like a hell-broth boil and bubble."

Pepper with legal acumen, salt with common sense, and, lo and behold, a grave legal decision within a court of equity, and a display of fireworks far off upon the scene of contention.—G. M.

## BUILDING IN BIRMINGHAM.

CONSIDERABLE discussion has taken place in Birmingham with regard to new bye-laws proposed as to future building in the town. However great the desire to prevent over-crowding, and improve the sanitary conditions of the thickly-inhabited parts of Birmingham, there seems to have arisen a feeling that the proposal of the Town Council will tend to increase the rents of the dwellings of the working classes without decreasing the evils they have sought to prevent. Landowners, house-owners, architects, builders, and tenants, are equally opposed to the restrictions intended, so far as they relate to building operations. The Birmingham Architectural Society, on the 21st ult., passed a resolution,—

"That while approving of the object the Town Council have in view in framing the new bye-laws, it is the opinion of this society that if the laws are confirmed as at present proposed they will cause serious delay, expense, and inconvenience in the erection of new buildings, and also act prejudicially to the interests of architects and their clients, as well as those of land and property owners."

A letter was read from Mr. Arnold, solicitor for two of the largest local landowners, by the mayor, at a special meeting of the Town Council, expressing his apprehension that the street and building clauses would prove most ruinous to the town. Both architects and builders assert that the clauses as to separation of buildings, the dimensions of courtyards, as also the size of doors and windows, and similar regulations, would render it difficult for the working classes to live in the small houses, on account of the increase of rent they would entail, which, it is thought, would be nearly doubled: hence the inhabitants would be driven into apartments, and thereby increase the over-crowding of places requiring relief, some of the rooms that were inhabited, as Alderman Manton stated, not being fit for pigs. It is satisfactory to note, however, that the Town Council are only anxious for the well-being of the town, and its good sanitary and moral condition, and hence their proposal for its future regulation will not be adopted without full discussion.

## YORK CITY AND COUNTY BANK.

THE new Bank Offices in Parliament-street, which have been in progress of erection during the last eighteen months, according to the local *Herald*, have been opened for business. The present Bank was erected in 1835, from the designs of Messrs. Robinson & Andrews, architects. Since that date the population of the city of York has very greatly increased, and the business of banking by joint-stock companies, which was then in its infancy, has succeeded beyond anticipations. The premises, which were thought spacious enough forty years ago, have long been too limited for the present requirements of the York City and County Banking Company. The directors, therefore, decided to enlarge their present building, and purchased premises in Market-street, adjoining their Parliament-street property. The plans were entrusted to Messrs. J. B. & W. Atkinson, of York, architects, and the works have been carried on without interfering with the progress of business in the existing bank offices, the new bank being situated immediately behind the present one.

Owing to the irregular shape of the site, and light being obtainable on one side only, the architects have had considerable difficulty in obtaining a well-lighted and symmetrical room; this, however, has been successfully accomplished. The new bank will be approached through the present entrance in Parliament-street, from which a vestibule, having glass doors, will lead into the bank, which consists of a rectangular-shaped room, 37 ft. by 18 ft. This contains the space for the public, and counter, the latter being 26 ft. long and 4 ft. wide. Behind the counter is the portion reserved for the clerks, averaging 24 ft. by 20 ft. The bank proper has a semi-circular ceiling, 28 ft. high from the floor; in the centre of this ceiling is a flat dome, 18 ft. in diameter; at the apex of the dome is a circular skylight, 9 ft. in diameter, and 35 ft. from floor to glass. The ceiling of this part is of plaster, panelled and moulded, all executed by Mr. Francis Rawling, of this city. The walls and columns are executed in Parian cement, and painted; wooden panels, painted in dark purple, are fixed all round the bank. The floor of the entrance vestibule and space for the public are laid with a new description of tile-paving, manufactured in Antwerp by Mr. Ludwig Oppenheimer, the surface of which is unglazed, and the objection of slipperiness thus obviated. The space for clerks is finished in a similar manner to the other part of the bank, having arched and panelled ceilings. The whole of the desks are mahogany, the workmanship of the counter being that of Mr. Rockledge, of Stonegate, and of the remainder of the cabinet and joiners' work and the desks that of Messrs. J. P. & W. Harrison, of York. Below, there is ample strong-room accommodation, which is connected with the bank by means of ingenious hydraulic-lifts, provided by Messrs. T. Cooke & Sons.

The bank is heated by air, which is conveyed direct from outside, and passed over a coil of hot-water pipes placed in the cellar, and is then transmitted into the bank through grates, which can be regulated at pleasure.

The various contractors, who have carried out the works in a very satisfactory manner, are:—Messrs. Weatherly & Rymer, brick and stone work; Messrs. J. P. & W. Harrison, carpenters and joiners' work and clerks' desks; Mr. Prudanes, plumbing; Mr. Rawling, plastering; Mr. Baynes, slating; Mr. Dodsworth, painting; the York Railway Plant Company, ironwork; Mr. Rookledge, counter; Messrs. Cooke & Sons, hydraulic lifts; Mr. Fryer, heating; Mr. Oppenheimer, Manchester, tile-floor.

It remains to be added that it is a source of much regret that Mr. J. B. Atkinson, the senior architect, and Mr. Peter Rymer, one of the contractors for the builder's work, were both removed by death during the progress of the work.

## THE RIVERS POLLUTION COMMISSION.

THE fifth report of the commissioners appointed in 1868 to inquire into the best means of preventing the pollution of rivers is issued, and their conclusions are summed up as follows:—

We are of opinion that any law having for its object the prevention of river pollution should,—

1. Absolutely forbid under adequate penalties the casting of solid matters into the river channels;

2. Enact the foregoing standards of purity below which any liquid discharges into watercourses should, with the exceptions already mentioned, be forbidden;

3. Give power to all manufacturers in towns, except those of gas, paraffin oil, pyroligneous acid, animal charcoal, tin-plate and galvanised iron, to discharge their drainage waters into the town sewers under suitable regulations;

4. Confer additional powers on corporations, local boards, manufacturers, and mine-owners to take land compulsorily, under "provisional order," for the purpose of storing their waste refuse, or of cleansing sewage or other foul liquids, either by irrigation, filtration, or otherwise.

We are further of opinion that the equal and efficient administration throughout the country of any Act that may be passed for these purposes would be best secured by the appointment of inspectors, to whom should be committed the duty of detecting and proving offences against the law, and of procuring the conviction of offenders. We are, however, strongly of opinion that in order to secure the independence of these inspectors from local influence they should, like the inspectors under the Alkali Act, hold their appointments from your Majesty's Government.

On the formation of River Conservancy Boards with limited authority for local taxation, and power to authorise and direct expenditure for the purpose of river improvement,—as, for example, in the purchase and removal of weirs, the straightening and deepening of watercourses, and the formation of upland reservoirs,—we have already stated our opinion in our report (1870) on the Mersey and Ribble basins. There is undoubtedly a large field for useful work in every important river-basin both in England and Scotland for a Conservancy Board of this kind; and it is certain that whenever the necessity of the various river improvements which it would direct and superintend shall have become urgent, a representative body of this kind will be indispensable, having power, in connexion with the local and corporate authorities within the river basin, to levy rates for defraying the cost of whatever operations it may direct. But we are convinced that the thing of immediate and imperative importance in connexion with river improvement throughout the country is simply the prohibition, under adequate penalties, of the gross pollution which at present renders so much of the running water of this country useless to manufacturers, agriculturists, and the public generally.

The conclusions which we thus humbly submit to your Majesty have been arrived at after an inspection of nearly every town and district in Great Britain where any manufacturing or mining operations of importance are carried on. We have, moreover, personally examined, during the past five years, forty-nine woollen factories, fourteen works in which cotton is dyed, printed, or bleached; sixteen chemical and alkali works; ten linen, jute, and flax mills; five silk-mills and dye-works; nineteen paper-mills; four paraffine-oil works; four alcohol distilleries; four starch works; four tanneries; one sugar factory; two soap works; one salt works; five cutlery works; one nickel foundry; four silver, German silver, and electrotype works; five brass foundries; eight wire, tin-plate, and galvanising works; three iron works; sixty-nine mines; besides forty-three works for the purification of sewage, and the standards of purity below which we recommend that all liquid discharge into river-channels be forbidden, have been adopted after an investigation which has involved no fewer than 1,200 analyses of the various drainage waters which offend them, before and after the various modes of treatment which we have investigated, in addition to more than 2,000 samples of river and other waters before and after pollution.

## SCHOOLS OF ART.

*West London.*—On the 22nd ult., the annual distribution of prizes to the students of the West London School of Art, Great Portland-street, took place. Mr. Forsyth, M.P., presided. By the report of the head master, Mr. George A. Stewart, it appeared that the number of students during the present year had been 590, being a decrease of fifty-seven on the number of the previous year. The two most successful competitors have gained valuable appointments through their talent,—Mr. Henry Noble, who takes the national bronze medal, as chief designer to a large Manchester firm; and Mr. Carl Jahn, as Master of the Mint at Helsingford (Finland). Mr. Forsyth, in making the distribution, congratulated the students upon the nature of their occupation. They could not obtain excellence in art, and could not hope even to obtain mediocrity, unless they were determined to give to it unflinching and persevering attention. Another piece of advice was worthy of their notice, "Be modest,"—not in the ordinary sense of the term, but the modesty of being content to be pupils before they were critics. They would do well to avoid caprice or affectation. It was to schools of this kind that they looked for a better taste in the art studies of the metropolis, and for redressing such evils, even, as the disgraceful state in which the streets of London sometimes were.

*Carlisle.*—On Monday, the 21st ult., the annual exhibition of works executed by the pupils of the School of Art in this city was opened to the public, the works being displayed in the school-room. The generality of them, according to the *Carlisle Journal*, are of a more ambitious character than we have been accustomed to see there, though, at the same time, there appear to be fewer pictures done in oils. The advance steps consist in the increased number and better quality of the water-colours, and the more refined nature of the pencil-drawings from the antique. The water-colours are of very unequal merit; though many are of high quality, showing good draughtsmanship and purity of taste in colouring; others are inferior in drawing and crude in execution. The exhibition is superior to any previous one in the same school, and is of a more attractive character throughout, while the collection is supplemented by several superior engravings and water-colour studies from the South Kensington Museum.

*Ryde, Isle of Wight.*—An Art Loan Exhibition was opened in the Town-hall at Ryde, Isle of Wight, on the 22nd ult., in connexion with the School of Art of that town. The proceeds are to be devoted to the fund for the erection of the school, the foundation-stone of which was laid by the Princess Royal during the last season. The opening speech was delivered by Mr. Alexander Baillie Cochrane, the member for the Island. A large number of prizes were presented to the successful candidates.

*Northampton Science Classes.*—On the 18th ult., the prizes awarded by the Science and Art Department to the successful students of the Science Classes connected with the Northampton

Museum were distributed by the Mayor in Mr. Lees's school-room, Derngate, where the meetings of the classes are held. The Mayor, before proceeding with the distribution, said it gave him great pleasure to distribute those prizes, because they showed the amount of application and diligence students must have given to their studies in order to gain the prizes he saw before him. They were all fearfully and wonderfully made, and God, their maker, had placed them in a wonderful world, and it behoved them, not only to know themselves, but to know something of the elements by which they were surrounded. The instruction they were receiving at those classes was fitting them for honourable usefulness in the future. The first prize, a bronze medal, given by Mr. J. B. Hensman, five subjects, was won by Brian Norris; 2nd, 15*l.* scholarship, also by Brian Norris; and the 3rd, 15*l.* scholarship, by Frank Morris. In addition to numerous other prizes, thirty-seven first and sixty-eight second-class certificates were awarded. The Science and Art Department have also offered scholarships at the South Kensington School of Science to Mr. Law and Mr. B. Norris, and one of the late members of the classes has been appointed assistant at the same school.

## THE AMATEUR.

THE amateur architectural critic has come in for some hard sayings recently; the last two or three weeks in particular. He has been called "hysterical," and other bad names, in assemblies of grave and reverend seniors of the profession, and wonder has been expressed that he should ever have been listened to at all. It was suggested that the architects generally had been guilty of a great want of foresight and care for their own interests, in ever encouraging the amateur as they had done in times past. They had done more than encourage him, indeed they had "bowed the knee to Baal"! invited him to come and rebuke them for their misdeeds, and humbled themselves before him. Under such treatment no one could wonder that the amateur critic "waxed fat and kicked," and had come to think himself a very privileged person, and to give himself airs; and now some of the architects say they have had enough of him.

This kind of re-action against the amateur is part of the searching of hearts which takes place whenever any adverse criticism, however unfair or overcharged, is directed against the profession by the public press. There is a cry raised that we are not sufficiently respected, and then comes the question, why not? And on this occasion the amateur is arraigned, and made the scapegoat, *pro tem.* He has behaved ungraciously and ungratefully. We have read his "hysterical" criticisms and praised them, even spoken of them with a sort of awe; we have invited him to our meetings, allowed him to reprove or even bully us *vivâ voce* and in print; and now he (the amateur, in the abstract) joins in a cry against us, [if indeed he is not the main author of it; refuses our gold medals, and generally insinuates his opinion that we are worth nothing. And after this kind of behaviour, it is not very surprising that he should be told to mind his own business, and not interfere any more.

This seems to be the substance of a feeling which has lately received rather strong expression now and then, and was emphasised at a recent Institute discussion. And it must be admitted that the attitude assumed towards the architect by the representative of dilettantism on that occasion could hardly tend to modify the feeling. One is always glad, no doubt, to meet persons having extended interests and studies beyond the range of the profession; it is even very agreeable to be able to learn anything from them; but when an able lawyer recounts to a body of architects, with perfect *sang froid*, his method of adjusting a competition, the results of which had been unsatisfactory, by the simple formula,—"I will give you a plan, if you will make your architect adopt it,"—this seems to be clanking the chain a little too openly. One might, perhaps, tolerate being managed by amateurs, if they made themselves agreeable; but it is hardly in human nature to like being told that you are managed.

And it must be conceded that the charge against the amateur is not groundless. For some reason, architecture seems to be a matter peculiarly liable to be laid hold of and speculated upon, and even empirically practised by amateurs: a fact to be attributed partly to its less precise definition in comparison with other arts, but in great measure to the prevalence of mere restoration and reproduction of older style in modern practice. When the art is made to consist in the accurate imitation of any older style, rather than on the solution of modern problems in construction, a field is opened for the amateur, in which he can shine with little difficulty. He is not troubled with the petty details of actual practice; he is generally a man of some means and plenty of leisure; and it is no great undertaking for him to inspect old buildings, look up authorities, and make himself apparently perfect in whatever has been done, and then come down upon the unfortunate architect whom he chooses to accuse, in a "restoration," of want of attention to precedent, and whom he threatens with the thunders of some society ending in "ogical." We say the amateur is "apparently" well up in all these things, because, in fact, it is generally only the outside appearances which he has troubled himself with, and when it comes to a question of the bearing of construction upon the design, he is commonly nowhere. Nor does his knowledge of past precedent in any way enable him, as a rule, to make suggestions for the future guidance of the architect, except as to mere reproduction of ancient details. It is therefore in the sphere of restoration of old work that the amateur has generally been most demonstrative, and his view of his own position is pretty much that suggested by the "fine old English gentleman," who addressed the meeting on the occasion of Mr. Sharpe's recent lecture, and assured his audience that the preservation of ancient monuments, so far as it had been achieved, was mainly due to amateurs. We do not think this gentleman's position would stand the test of facts and figures, if the evidence on the point could be brought forward *in extenso*; and in cases where it would appear that the amateur had been the chief agent in the matter, it would probably be found that this was only because the said amateur, from some accident of social or political position, was enabled to bring influence to bear more directly on the public, and that the despised architect was in many such cases the *primum mobile*, after all.

Then, besides the social and archæological amateur, there is the literary amateur,—the person against whom, mainly, strong opinions have been expressed. The mischief of this class of amateur is that he indulges usually in a great deal of rhapsodical writing on the artistic side of architecture, without knowing anything of its practical and constructive problems. In this way he falls into many æsthetic pitfalls, and gives out, in beautiful and choice language, principles and theories which every practical architect, we might almost say every man of sound common sense and good education, knows to be mere talk and moonshine. The public, however, believe in his moonshine, partly because he not infrequently writes well; partly because he is one of themselves and makes no claim to professional exclusiveness; and partly because the architects, or certain of them, have weakly bowed down to him, and adopted his opinions and theories, chiefly (in general) as a weapon in combating those of another clique in their own profession. That is where much of the mischief originates. The profession are divided against themselves, and one party are only too ready to flatter and make common cause with a man who is good at his pen, and who will write against their professional or artistic opponents. We will not say the amateur has done no good. He has contrived probably to interest the general reading public in architecture more than they would otherwise have been interested. But he has done so in almost every instance (if not in every one) from a partial and one-sided point of view, and with a partial and imperfect knowledge of his subject. He would have been shown up for this at once, whether he were lay or clerical (the parsons are great hands at this sort of architectural romancing), if the profession had combined to keep him in check. But a clique of them have upheld and encouraged him, in order to use him for their own purposes, in recommending their own set of ideas to an easily deluded public. And now they begin to find that he is inclined to take the office of teacher upon himself, and to assume an air of authority, and lecture them from the position to which some of them have inconsiderately elevated him. The remedy is simple. Let the profession combine together and show the amateur to his proper place. He may be useful in collecting information, and in writing agreeable books which stimulate public interest in architecture. But he has no claim to dogmatise either to the architects themselves or to the public; and if he goes beyond his last he is sure to be discredited in the end. Architecture is the only liberal or artistic profession in which the amateur is allowed thus to parade himself as the instructor of the profession, not only with temporary impunity, but with applause and encouragement from certain sections of the architects. An amateur engineering or medical dogmatiser would soon be shut up. It rests with the architects themselves to bring these rather self-satisfied gentlemen to a sense of their real position.

## REJECTION OF THE PUBLIC LIBRARIES ACT IN LAMBETH.

IF the decisions of the ratepayers of Islington, Bethnal-green,* and Lambeth are to be received as a test, there seems little hope at present of the artizan class in the metropolis having the privilege of availing themselves of those opportunities of intellectual improvement and scientific advancement which the establishment of public libraries affords, and which has already been so clearly manifested as regards several of the large towns in the provinces. Within the last four weeks Islington and Bethnal-green have refused to adopt the Act, and on Wednesday evening last week, at a meeting held at the Horns Tavern, in Kennington, the ratepayers of Lambeth adopted a similar course. According to the reported proceedings of the meeting in question, as well as from information which we have received from persons who were eye-witnesses, the conduct of the majority of those present afforded the most painfully conclusive evidence that the introduction of the Act was really required in the parish. Every person who attempted to speak in favour of the adoption of the Act appears to have been literally howled down. No statement whatever in support of the libraries being established was permitted, whilst, on the other hand, those who opposed the proposal, were compelled to admit that libraries were desirable, but that their establishment at the present time, involving the limited penny rate for their support, was inopportune. It was in vain that several gentlemen endeavoured to instance the case of Sheffield, and other towns, where the libraries are now in operation, with a rate of little more than a halfpenny in the pound. Mr. Applegarth, amongst others who claimed a fair hearing for the speakers on both sides of the question, was not allowed to say a word, and at length he retired, after stating very emphatically, "I enter my protest against the cowardly conduct pursued by a number of persons in this meeting, in deliberately howling down every man who has uttered or tried to say a word in favour of the adoption of these Acts."

It should be stated that at several preliminary meetings held in different parts of the parish, before the general ratepayers' meeting at the Horns, resolutions in favour of the adoption of the Acts were carried. The project was first originated by a number of gentlemen, whose object it is to associate the libraries with the museum in South London, which is now likely to be carried out, the excavations for the foundation of the intended building being at present in progress. They are desirous to have in Lambeth a free library, and a museum and art and science classes in connexion with it, in the spirit of the Public Libraries Acts, which were passed upon the understanding that such libraries, museums, and classes, were very desirable. At one of these meetings the Rev. Mr. Murphy observed that "if it was true that the workmen of the Continent had every facility given them to study special subjects, models of the antique, and beauty of form in the various galleries and museums free, it was time that something was done in the same direction in this country, or we should find our workmen left behind in excellence of workmanship. It was time that the rule of thumb should be a thing of the past, and that men engaged in work should endeavour to make the most useful things in the most beautiful forms." Mr. Percy Hart, another speaker at one of these meetings, said he hoped the Act would be adopted, and that the disgrace would no longer continue of the ratepayers in Lambeth not having a single building of such an

* It should be stated, with regard to Bethnal Green, that although the adoption of the Act was carried at the meeting of the ratepayers by a show of hands, the Vestry have since refused to act upon it, on the ground that the chairman of the ratepayers' meeting refused to grant a poll when demanded.

educational character which they could call their own. With reference to the first or central library proposed to be built, Mr. Symons stated that there was a piece of land at the junction of the Brixton-road and Camberwell New-road, which he had reason to know could be had from the Duchy of Cornwall as a site for the proposed new building. Mr. Storr also stated that the rateable value of Lambeth was close upon a million, and that a rate of 1d. in the pound would realise from 3,700*l.* to 4,000*l.*

## DISSENSIONS IN EAST GRINSTEAD.

THE ceiling of East Grinstead church has been taken down, and the plaster has been removed from the walls, and a large number of the inhabitants are very cross about it. An indignation meeting was held last week, and it was resolved, —"That the vicar and churchwardens be called upon to restore and replace what has been pulled down and damaged, and in case they refuse that a suit be instituted to compel them to do so." What has been done may or may not be an improvement, we are not bound to say which; but surely the vicar would have shown himself wiser if he had first told the parishioners what he was about to do.

## BUILDING ON THE DULWICH COLLEGE ESTATE.

THE trustees of the Dulwich College Estate have given notice, by direction of the Charity Commissioners, of their intention to grant building leases of certain portions of the property, for the term of 84 years, at annual ground-rents named, the lessees in each lease to expend not less than a stipulated sum in the erection of dwellings. In one case, the plots of land to be leased are situated in Half Moon-lane, Dulwich, having a frontage thereto of 25 ft. The annual ground-rent of these plots is 6*l.* 5*s.*, and not less than 500*l.* are to be expended in buildings. Another plot to be let is also in Half Moon-lane, having a frontage of 110 ft., and a depth of 300 ft. In this case the annual ground-rent is 29*l.* 10*s.*, and the minimum sum to be expended in building is 1,500*l.*

## ST. MARY'S, BRINKLEY.

THE parish church of St. Mary, Brinkley, near Newmarket, was re-opened on Christmas day. The chancel has been partially rebuilt, and a vestry added; the chancel arch enlarged, and the chancel re-seated with open benches, in lieu of high pews. New open roofs of pitch pine, with curved ribs, have been put to the nave and aisles, and a new clearstory built. The windows throughout have been renewed in Box ground stone,—in place of the clunch, a soft local stone,—and are glazed with cathedral glass in lead lights. The walls internally have been re-plastered (a stoup, and a small piscina of some merit having been discovered bricked up), and have been refaced with flintwork externally. It is intended to rebuild the porch and reseat the nave as soon as funds will allow. The work has cost about 1,000*l.*, and has been executed by Messrs. Mason & Son, of Haverhill, under the superintendence of Mr. Frederick Thomson, architect, of Adelphi.

## IMPERFECTIONS OF ROADS AND STREETS.

IN a paper on the imperfections of our roads and streets read at the meeting of the Society for Promoting Scientific Industry, Manchester, Mr. Evan Leigh, the lecturer, after admitting that Manchester had little cause for complaint with regard to the improvements which had of late been carried out in the paving of the streets, urged that notwithstanding this neither it nor any of our large towns were, in this respect, what they might be, at a much less expense withal, under a totally different system. The means which he proposed were novel, but quite practical. He discarded metal tramways altogether as unsuitable to the general public. He wished to see a road suitable for all vehicles, as smooth as a railway, and as durable; one that could be worked with perhaps a fourth of the present tractional power, and that would cost next to nothing for repairs, after the first expense in laying down. Instead of the pick and spade, which continued to be used in road-making, he proposed to introduce machinery and steam-power. For this purpose he would introduce the planing-machine, for which they were indebted to the genius of Roberts, late of Manchester, or Fox of Derby, and with this, if the road was macadamised, he would plane it level by steam-power. If operating upon a street the first thing would be to rake up the pavement to the breadth of a carriage-track, then to run the machine over it with the cutters set at a sufficient depth to get a hard and solid foundation. The machine would then be shifted to another part of the road, leaving behind it a road foundation, the solidity, uniformity, and general quality of which could never be produced by hand labour. Following the machine should be a number of labourers and paviors, laying down at a suitable distance apart blocks of artificial stone, with a facing of Portland cement, for the carriage-wheels to run upon.

## EXPLOSIONS.

*Fatal Explosion at Margate.*—On the 23rd ult., an explosion took place at Mr. George D. Merten's concentrated worts factory, in Herbert-place, Margate. The brewery was in full work. The owner and other persons were on the premises at the time. The building and its contents, and a portion of the adjoining premises, were instantly a mass of ruins, and one boy named Gibbs (who was killed on the spot), and three or four of the men were buried under the *débris*. The men were speedily rescued, all being more or less injured. The machinery, packing cases, bricks, timber, &c., were scattered in all directions, a piece of iron weighing 64 lb. being thrown through the roof of a building 200 yards distant. The outside corrosion of one of the plates which was embedded in the brickwork was the cause of the accident.

*Serious Gas Explosions at Sheffield.* — A serious gas explosion has occurred at the works of Messrs. John Brown & Co., limited, at Sheffield. One of the gas mains running between the armour plating-mill and the press burst—probably in consequence of the frost—and large quantities of gas escaped through the crevices in the ground. At the time when this happened some men were conveying an armour plate, whilst in a welding heat, to the press opposite the mill. The gas ignited at the hot plate, and immediately exploded. The works were in darkness for six hours, owing to the stoppage of the gas supply. No one was much injured.—On the 31st ult. a house, situated in Rockingham-street, Sheffield, was almost demolished by an explosion of gas. The woman owning the house, it is said, was blown up a chimney, a girl who was upstairs was precipitated through the window into the street, and several others were hurt. The house is utterly wrecked.

*Explosion at Maldon Union-house.* — On the 21st ult., an explosion occurred in one of the out-buildings of the new workhouse at Maldon, used as the fever hospital,—a brick and slated single-floor building, divided into three departments, the middle of which contains a kitchen allotted to the nurse, about 10 ft. by 12 ft., and two wards, one on each side of the kitchen. The kitchen was fitted with a range of moderate dimensions against the wall of the room on the right, and water was supplied to it from the main through a tank divided into two departments, placed over the lobby between the ceiling and roof. Benham & Sons' patent circulating pipes were used, and on their system a pipe conveys the cold water from the tank down into the range boiler, and on becoming heated the water passes through another pipe up into the hot-water division of the tank. The kitchen had not been used for a considerable period, but as part of the Christmas dinner was to be cooked there, directions were given for a fire to be lighted. On Monday two female inmates set about lighting a fire, and did so with difficulty. Shortly afterwards a crash was heard. The two walls separating the kitchen from the two rooms were hurled into them. Half the chimney lay in the kitchen, the other half 6 ft. or 8 ft. into the room on the right. The kitchen ceiling had been torn down Two holes, one about 8 ft. square, were made by the chimney in its descent. The tank had left its position on the lobby, portions of the range were scattered here and there, but the main part was buried beneath the *débris*. Broken water and gas pipes, and windows, and heaps of rafters, &c., completed the scene of devastation.

*Boiler Explosion at Chorley.*—A terrible boiler explosion took place on December 27th, at a shop in Chorley, Lancashire. The house was just tenanted by a Scotch family named Waddell. They had been told not to light the kitchen fire, as the pipes from a boiler behind the grate to the bath-room were frozen; but the warning was disregarded, and while seven persons were sitting round the fire the boiler suddenly burst with a loud report. Six persons were seriously injured.

*Explosion at Preston Workhouse.*—On the 28th ult. a fatal accident occurred at the Preston Union Workhouse, Fulwood. The boys were entering the school, when the boiler connected with the heating apparatus suddenly exploded, scalding two children severely and killing another.

*Croydon.*—Last week a fatal accident occurred at the Croydon Town-hall. In the basement of the building was a boiler, in connexion with the heating apparatus employed for warming the various chambers, and, Saturday being the day on which the weekly Petty Sessions are held, it was the duty of a man named Cahill, the hall-keeper, to get the bench-room properly warmed beforehand for the occasion. It was believed that the pipes in connexion with the boiler were to some extent frozen, and in consequence the instructions were to light a very slow fire. The fire was lighted about one o'clock, and about twenty minutes past two Cahill proceeded downstairs to attend to the furnace, apparently intending to put on a little more fuel. About ten minutes afterwards Police-sergeant Flaxman, 32 W, while passing along Surrey-street, heard a loud report, and saw steam issuing from the lower windows in the rear of the town-hall. Suspecting that an explosion had occurred, he immediately ran round to the front entrance and proceeded to the basement. There he found the boiler had burst and been blown to pieces, scattering the brickwork in which it was set in all directions, and half-buried beneath the rubbish was Cahill, who still breathed, but was unable to speak.

*Bradford.* — A kitchen boiler, in the house of Mr. Ephraimson, New Ashfield, Bradford, exploded recently, forcing out all the windows on the ground-floor of the house, and bulging considerably the wall of the adjoining premises. A servant who was in the kitchen at the time narrowly escaped with her life, being blown out of the window, and falling a distance of 16 ft. on to the pavement.

## MONUMENTAL.

*Proposed Memorial of Bishop Sumner.*—It is reported that the family of the late Bishop Sumner propose to erect in Winchester Cathedral a memorial of this distinguished prelate. The work will be intrusted to Mr. Weeks, the eminent sculptor, and the monument will be in the form of a recumbent figure of the late bishop, similar to the one in Canterbury Cathedral to the memory of Archbishop Sumner.

*Monument to Captain Cook.*—A communication from her Majesty's ship *Scout* states that a monument has been erected on one of the islands of the Pacific to the memory of Captain Cook, who was killed by the savages of Owhyhee, ninety-five years ago. The ceremony took place on the 14th of November, in the presence of Major Wodehouse, the English Commissioner, and the captain and officers of the *Scout*. The monument is an obelisk 25 ft. high, and mounted on a base 8 ft. square. It is of concrete, and bears the following inscription:—"In memory of the great circumnavigator, Captain James Cook, R.N., who discovered these islands on the 18th of January, A.D., 1778, and fell near this spot on the 14th of February, A.D., 1779. This monument was erected in November, A.D., 1874, by some of his fellow-countrymen." The architect was Mr. R. Lishman, of Honolulu (late of Northumberland, England). It is erected on a spot (which the *Scout's* company selected on their first visit in April, 1872), about 100 yards from the rock on which the captain fell. A monument, consisting of blocks of lava, was erected at the spot some years ago; but it had fallen down.

*Statue to the Emperor Napoleon.*—The Italian sculptor Gaetano Barzaghi is at present working upon an equestrian statue of Napoleon III. which is to be set up in Milan. It represents the late Emperor responding to the enthusiastic reception he met with on his entry into Milan, and is designed as a memorial tribute from that city. The statue is of life size, and will be cast

in bronze and placed upon a base of marble decorated with bas-reliefs.

*Monument to Lessing.*—A monument has been erected upon the tomb of Lessing, in the cemetery of Brunswick. It consists of a granite pyramid bearing on one side a profile portrait of Lessing in bronze.

*Livingstone's Tomb.*—A large black marble tombstone was laid over the grave of the late Dr. Livingstone in Westminster Abbey on the 23rd ult. The stone has a lengthy inscription, in gold letters.

*Monument to French Troops.*—Marshal M'Mahon has just given 2,000 kilogrammes of bronze taken from old guns to make an immediate cast of the colossal group which will be erected in the field of battle of Mars-la-Tour, to the memory of the soldiers killed in the days of Gravelotte, Saint Privat, Mars-la-Tour, and Sainte Marie-aux-Chênes, on the 16th and 18th August, 1870. The group will be inaugurated towards the 20th of February with great solemnity. The marshals and generals commanding *corps d'armée* will be present, and the Chief of the State, it is said, will preside.

## GAS.

*Stafford.*—The Stafford Gas Company have given public notice that they have used all endeavours possible to keep up a proper supply of gas, but, in consequence of not being able to obtain coal from any source, they fear that the supply for public or private use for several days hence must be necessarily very limited. The scarcity of coal is attributed to the long holidays taken at this season by the colliers, and the consequently meagre "put out."

*Fairford.*—The Fairford Gas Company intend making a reduction in the price of their gas. It will be reduced from 8s. 4d. to 7s. 6d. per 1,000 ft., which is still rather a high price. [We should say it is, rather!]

## THE ROYAL GOLD MEDAL OF THE R.I.B.A.

SIR,—The eyes of the profession are turned with considerable anxiety to the proceedings of the Council on this matter, for last year there was a complete *fiasco*. It is to be hoped that the like want of judgment and discretion will not be displayed on this occasion. It is feared, from certain rumours afloat, that the honour may not be conferred on one whose position or merits in the eyes of his brother architects will give weight to the decision. It must be remembered that the medal should not only confer honour on the recipient, but that he, to a degree, should be a credit to the honour. It must not be tarnished by the selection of a man of mere second-rate attainments or reputation, or of one whose fitness consists in a good appointment, or jovial sympathies. There cannot surely be wanting an architect of great abilities, or author of works either scientific, artistic, or literary, or whose eminent services rendered to the art and the profession, constitute a title. If the Council do not propose such a candidate, let them beware lest a spirit of indignant remonstrance be aroused, for some dozen Fellows will be surely found to vindicate what should be the judgment of the profession, and a rival name will be proposed (as on other previous occasions) to prevent the Royal Gold Medal being considered unworthy the ambition of the leading members; or perhaps steps may be taken to avoid such dilemmas in future, by requiring two names to be submitted for selection, and thus avoid the compulsory acceptance of the nominee of the Council. I send you my name. A WATCHER.

## RATS AND SLAUGHTER-HOUSES.

SIR,—In your paper of the 26th ult. the increase of rats in the metropolis is reported. The reason is plain. Rats follow slaughter-houses, and will burrow through anything short of iron and stoneware pipes to get at blood and refuse. Plant a slaughter-house anywhere amongst brick drains and sewers, and in a short time every drain and sewer in the neighbourhood will be perforated; and not only will the rats be traversing and trying each weak point in our houses and house drains, but will be affording outlets to the sewage into the subsoil. Late inquiries have shown that there are from 1,600 to 1,700 private slaughter-houses in the metropolis, and that their number and business are increasing. What further reason can be wanted for the increase of rats also?

But it may be asked, why not pipe-drain your houses, and fit them with heavy sink-traps? This was done in a house I occupied in one of our squares; and the rats, baffled for a short time, soon worked their way back by burrowing from the outside cellars under the house foundation, and made their appearance again, like the clown in the pantomime, in the kitchen, pantry, and even drawing-room, much to the horror of kitchenmaid and housemaid. I could only get rid of the pest by changing my residence to another quarter. A LONDONER.

## DESTRUCTIVE FIRES ON SEA AND LAND.

SIR,—The appalling loss of life of late on land and ocean is enough to startle nations from apathy. Many calamities are preventible, for example, in the case of the illfated *Cospatrick*, recently destroyed by fire, with the lamentable loss of some hundreds of lives.

I take a ship full of shavings, chips, anything inflammable. I ignite them. When flame mounts through the hatchway, I would clap the covers on, then pull a stout rod, which descends from the deck through an iron gas pipe to a large size fire-annihilator securely fixed in the bottom of the ship. Hauling at the rod-wire would unplug the can, and break a bottle of fluid fixed inside the can; the ingredients in the charged can would instantly emit the well-known fire-destroying vapour. Were the above adopted, it would save many a factory and mill, if the handle was only within reach of the night-constable. I present it in hope and confidence in its efficacy to prevent disasters on the main. Did my means permit me, I would gladly exemplify it.

Many useless beings are bedizened and subsidized, but a poor benefactor of mankind is throttled and robbed of 300*l.* if he ask for protection to being out something useful. Reverse this, ye powers that hold the scales! R. T.

## A BALANCE REPUDIATED.

COOPER *v.* RADFORD.

At the County Court, Isle of Wight, a claim was made for 50*l.*, balance for work done. Plaintiff is a retired builder, of Sandown, and defendant is a clerk of works in the employ of the Government, but was formerly an apprentice to plaintiff. He had also been in the employ of Mr. Cooper, as a carpenter. Mr. Cooper built some houses for him for 450*l.*; 400*l.* were paid by defendant when they were finished, and 50*l.* were left as a debt, defendant agreeing to pay interest on the debt till paid off. Defendant left Mr. Cooper's employ, but afterwards returned to plaintiff's service, and after a time applied for an increase of wages. Plaintiff said he could not grant that, but would not charge him the interest on the 50*l.* as long as he remained in his service. In 1865 defendant went to London, and before going asked plaintiff to act as his agent. Plaintiff agreed to act as agent, and kept an account in a memorandum-book produced. Defendant came down to Sandown in 1867, when a balance was struck in the book. The matter went on till 1869, when plaintiff, hearing that defendant had sold his houses, called for his money, on which defendant repudiated the debt. Defendant said the bargain for building was originally 350*l.*, but it was increased to 400*l.*—never to 450*l.* Mr. Cooper said something about 50*l.* more which he ought to have, but no agreement was made for more than 400*l.* His Honour ruled that defendant having gone through the account in the memorandum-book, in which interest for 50*l.* was charged in 1867, when a balance was struck, this was a proof of the debt, and gave judgment for the full amount, to be paid in instalments of 2*l.* per month. A cheque for 35*l.* down was ultimately accepted.

## BUILDING WITHOUT NOTICE.

At the Wandsworth Police-court, Mr. William Leach, a grocer, of High-street, Wandsworth, appeared to answer a summons at the instance of Mr. Hiscocks, district surveyor, for erecting a building without giving notice.

In the first instance a carpenter named Hatcher was summoned, but he stated that he was employed by Mr. Leach at so much per hour.

Mr. Hiscocks said he wished the magistrate to decide who was the builder. It was an important question, and though it was a penal section under which the defendant was summoned, he did not ask for a penalty.

Mr. Ingham said the Act meant a master builder, or other master employed to execute the work.

Mr. Leach, on being asked why he did not give notice, said Mr. Hiscocks had not required notice on six occasions out of seven. He always came into his counting-house, and received the fees.

Mr. Hiscocks said that statement was untrue, as he had always remonstrated with him.

Mr. Leach then produced a cheque, and said he had paid Mr. Hiscocks the fee for the building in question.

Mr. Hiscocks said the cheque was left at his office after the summons had been taken out. No account had been delivered, nor receipt given. In reply to the magistrate, Mr. Hiscocks admitted that his signature was on the cheque. He said he did not deny having the money.

Mr. Ingham said he (Mr. Hiscocks) had taken the fee without inspecting the building. Mr. Hiscocks said he had not taken the fee for the building. It was left at his office without his consent.

Mr. Ingham said he was not forced to take it up. He dismissed the summons against Hatcher, and ordered Mr. Hiscocks to pay him 5*s.* for his costs. He fined Mr. Leach 1*d.* and 2*s.* costs for not giving notice.

Mr. Hiscocks paid the 5*s.*, and said he should take proceedings against Mr. Leach.

## CHANGE OF FIRM'S NAME.

SCOTT *v.* COLLINGRIDGE.

This was an action at the Lord Mayor's Court on the 29th ult. to recover 12*l.* 10*s.* the price of a safe which had been supplied to the defendant.

The plaintiff, Mr. Henry Scott, said that he and his partner carried on business at 120, Cannon-street, which were originally the premises of Mr. Samuel Chatwood, for whom they acted as agents. The defendant ordered a safe to be delivered to the offices of the *Pictorial World* in Fleet-street. Application had been made to the defendant for payment, but he had not yet settled the account.

Mr. Leonard Collingridge stated that he had inserted an advertisement in the "City of London Directory," referring to Mr. Samuel Chatwood's safes. With the view of obtaining a fireproof safe in exchange or as a settlement of the account, he called at 120, Cannon-street. On inquiring for Mr. Chatwood, he was told that he was at Manchester, and defendant saw Mr. Scott, from whom he ordered a safe, and gave instructions that it should be sent to the offices of the *Pictorial World*. The plaintiff did not say a word as to any change in the occupation of the premises.

The Counsel on behalf of the defendant urged that it was proved that the business of the plaintiff was the same as that originally carried on by Mr. Chatwood, and that, so far as the defendant at least was concerned, no notice whatever of the change had been given. The evidence went to show that the safe was purchased of Mr. Chatwood, and not of the plaintiff, for the circulars sent to the defendant had on them the name of Mr. Chatwood.

The Jury found for the defendant.

## PUMP-WATER.—LOCAL BOARDS.

For some time past the western suburbs of London have been much disturbed by some useful sanitary proceedings, taken by the Acton Local Board of Health, before the stipendiaries at Hammersmith, in respect to pumps and their foul water. As usual, conflicting evidence was given on the question of the purity of water, and the Hammersmith magistrate, after hearing the evidence on the part of the Acton Local Board, as to the impurities of village pumps and wells that supplied the poor and middle classes for miles around the western suburbs, was so befogged that he appointed Dr. Voelcker to analyse samples of the water. The learned doctor could not determine as to some pumps, there being a difference of opinion.

Mr. Bridge, the magistrate, read a part of the report, that stated that the Brentford-lane pump was not contaminated with such an amount of drainage product as to render it unfit for drinking and for general domestic use.

The Rector of Acton championed the Thorney Conduit pump, whose antiquity could be traced 200 years, and he begged of the stipendiary, before he made an order, to consider earnestly what the consequences must be to a number of poor people who had used its water for years. Assuming the medico report to be correct, he submitted that it was the duty of the Local Government Board to remedy the evil, and if not, to place a drinking-fountain, or some other water supply, in place of the pump. As the Acton Local Board was custodian of the pump, it was cruel and unfair to order the only supply of water to be closed.

Mr. Hemsley, on the part of the Local Board, urged that the existence of wells and pumps was detrimental to the health, convenience, and comfort of the poor classes, as such led landlords not to put on a water-supply from other sources.

In giving judgment, Mr. Bridge said he had given the subject every latitude and consideration, as he considered it a very important inquiry. If well and pump water were pure and wholesome, it was better than water supplied from rivers and water companies. He should not order an old well to be closed unless it was shown that the water could not be made pure at a reasonable cost. He should, however, make an order for the worst pump to be closed for one month, and at the end of that time would require evidence that there were no means of purifying the water.

The Local Board here urged that it would be in the same position at the end of the month, and further expenses would be too heavy for them to undertake. The other summonses were withdrawn.

## SMOKY CHIMNEYS.

SIR,—May I venture to ask if there is practically any real cure for that domestic delight,—a smoking chimney? Two of my chimneys have been tortured again and again, "tall-boy," zigzag pipe, cowl, "contracted throat," &c., all to no purpose, and the expense and disfigurement have been serious. I find any number of "patent" inventions, selection from which is no task; while to get a skilled opinion free from bias in favour of some particular "nostrum" is simply an impossibility. C. P.

** Each case must be treated specially. The difficulty is to find the right man to do it.

**The Love of the Picturesque.**—Sir Thomas D. Acland, bart., M.P., was summoned before the magistrates at Exeter, January 1, for neglecting to have the hedges trimmed and trees lopped in various parts of his estate. In defence the hon. baronet said his father was fond of preserving the picturesque features of the Devonshire lanes, and out of respect to his memory the trees and brushwood had been left in their natural growth. An order was made by the magistrates for the removal of the cause of complaint.

## Books Received.

*Etchings on the Loire, and in the South of France.* By ERNEST GEORGE, Architect. London: John Murray. 1875.

A VERY charming book. We had occasion not very long ago to speak with much praise of a similar volume by the same author, Mr. Ernest George, "Etchings on the Mosel." The present volume is not merely equal in merit to that, but in some respects surpasses it. Mr. George has obtained great mastery over the needle, and moreover chooses his subjects well. Letterpress accompanies each view, brief but to the purpose.

*Homes, and How to Make Them.* By E. C. GARDNER. Illustrated. London: Trübner & Co. 1874.

THIS little volume, published in Boston, consists of letters supposed to pass between an architect and his friends, and containing hints and suggestions relating to the building of houses and the creating of homes. A little family story runs through it, and one might think it a sort of reflex *longo intervallo*, of M. Viollet-le-Duc's pleasant volume lately reviewed in our pages. Mr. Gardner has made his book instructive as well as pleasant, and, though addressed more particularly to American readers, it may be usefully read by all on this side the big pond, who contemplate building themselves a house.

### VARIORUM.

"THE History, Structure, &c., of the Sheep. By W. C. Spooner [(Lockwood & Co.)," is evidently accepted as a standard work on the subject of which it treats, for here we have a third edition, revised and enlarged. It contains full information on most points, but needs one more chapter which should treat of the buildings in which sheep can be properly kept.——The January No. of the *Victoria Magazine* includes a report of a paper by Miss Emily Faithfull, on "A Year's Experience in Emigration Work in connexion with New Zealand," read at the Victoria Discussion Society, and of the discussion which followed. This is more useful reading than some of the serial stories in the same number, which are poor things.

## Miscellanea.

**The Value of our Houses.**—By means of the House-tax we get an annual account of the value of the inhabited houses in Great Britain worth 20*l.* a year or upwards. The *Times* says an official return has been issued for the financial year ending on the 5th of April, 1873; and it shows that in that year the duty, at 9d. in the pound, was charged on dwelling-houses of the annual value of 28,455,854*l.*; and, at 6d. in the pound, on shops and warehouses of the annual value of 9,232,546*l.*; on beershops, of the annual value of 3,575,560*l.*; and on farmhouses of the annual value of 759,767*l.* The total annual value, therefore, was 42,023,727*l.*, which is 606,749*l.* more than in the preceding year. The increase extended to every one of these four classes of houses, but is most marked in the first, namely, the ordinary dwelling-houses, in which it amounted to more than 500,000*l.* An increase in value is, of course, constantly going on. It is attributable partly to the advancing value of house property, but more to the increase in the number of taxable houses—that is, houses worth 20*l.* a year, or more. If we go back seven years, and compare the above return with that for the year ending the 5th of April, 1866, we find that at that time the values were very much less; the dwelling-houses taxed were assessed at the annual value of only 20,826,335*l.*; shops and warehouses, 7,505,169*l.*; beershops, 2,841,181*l.*; farmhouses, 606,766*l.*; making a total of 31,779,451*l.*, which in seven years rose to be 42 millions.

**An Aquarium for Hastings.**—The plans for an aquarium and public baths to be built on the beach, a little east of Hastings pier, have remained in abeyance since the premiums were awarded nearly a year ago. A company of local capitalists, including the partners in two local firms of architects, to whom premiums were awarded at the time, has just been started; and a meeting, called by the Mayor, has just been held, to promote the establishment of the company. Resolutions in favour of carrying out the scheme under limited liability were carried.

**West Cheshire Hovels.**—At the usual fortnightly meeting of the Nantwich Rural Sanitary authority, Mr. J. A. Davenport, the inspector, drew the attention of the Board to several cottages standing on Rees Heath, a short distance from Nantwich. He states:—"At one house the average height of the two bed-rooms is 3 ft. 6 in. each, and five occupants sleep in 1,100 cubic feet of air-space. At another house there are six occupants in one bed-room, containing 1,300 cubic feet. The roof is in bad repair, and the rain can find a ready access to the bed-room. But a third case is really serious. Here we have a one-bedroomed house, and in the roof of this one bed-room there are two large holes where the thatch has fallen in, and they have been temporarily stopped up by an old door, old slates and bags, and, and indeed, anything available. I do not hesitate to say that the room is not fit to live in. The window, too, is partly out and stopped up with paper. In the single room, containing 1,150 cubic feet, sleep eight persons—two men, two women, one girl thirteen years of age, another eight, and two small children. The room will only contain two beds. They are all of one family; and this number during Christmas will be increased to eleven by the addition of three adults."

**The Phosphate Sewage Company and the Disposal of Sewage.**—One ingenious gentleman—obviously a *shining* light—has, we believe, mooted a scheme for the conversion of sewage into *blacking*. The only really practicable use, however, to which sewage can be put, is to utilise it as manure,—which certainly seems its *natural* destination. The Phosphate Sewage Company having undertaken the disposal of the sewage of Hertford, Professor Tanner, the company's chemist, recently explained their process to visitors from various towns. About a million gallons of sewage have to be treated daily; and inasmuch as this includes also the surface-water of the area drained, the quantity sometimes rises, after heavy rainfall, to as much as two millions of gallons. The sewage is diverted from the main, by which it is conducted to the works, into a tank, and at the point of leaving the pipe it is subjected to the action of the "phosphate liquor," which is the chief agent in the process. After undergoing filtration, the effluent passes off into a back cutting, and by the manifold-ditch into the Lee. The solid portions of the sewage are lifted up by machinery and carried along troughs to a large tank east of the machinery shed, where it is spread out on the drying-beds, and becomes a manure.

**Opening of Ripley Public Hall.**—A new public hall and baths was opened on the 21st ult., in Ripley, by Sir Henry Wilmot, Bart, M.P. The only available room in the town in which a public meeting, lecture, or concert could be held was the National School-room, which was not sufficiently large to accommodate the number of persons who gathered together. It was therefore decided to start a company for the erection of a public hall. The shares were rapidly purchased, and the formal opening of the building has taken place. The structure is of brick, faced with stone, interspersed with lines of ornamental terra-cotta work, and provides a large public hall, a swimming-bath, a temperance hotel, a working-men's public-house, and lodge-rooms. The principal room is the public hall, which is reached by a flight of steps from the front of the building. The hall is 65 ft. long by 45 ft. wide, and has a gallery facing the platform. It is calculated to seat 800 persons. The architect is Mr. G. Eyre, of Codnor, near Derby; and the contractor is Mr. Fletcher, of Ripley. The total cost of the building is expected to be about 6,000*l.*

**Suffocated by the Fumes of Charcoal.**—The coroner for West Kent held an inquiry at Lewisham, on the 30th ult., touching the death of Alice Hanson, aged 26, a servant at No. 1, Rutland Park-villas, Perry-hill, who was found dead on the floor of her bedroom on the night of Boxing-day. One of the girls went out, and did not return until half-past seven o'clock on Saturday night, when, on knocking at the door, she failed to obtain an answer. Becoming alarmed, she procured assistance, and an entrance was effected through a top-room window, and deceased was discovered lying dead on the floor in her night-dress. A charcoal stove was in the room, and it is supposed that being cold on going to bed she took it up and lighted it, placing it inside the fender. Unfortunately the register plate in the chimney was down, causing the charcoal fumes to be diffused through the room.

**The Roadways.**—At the sitting of the Marylebone Vestry, on the 31st ult., —Admiral Oliver, R.N., churchwarden, presiding,—a letter, couched in strong language, was read from Mr. Leo Schuster, complaining of the "vile" parochial administration of the parish in respect of the slippery state of the roadway in Cavendish-square, and suggesting that the parish *employés* should be engaged in strewing dust and ashes, or gravel, about the roads. Mr. Hallam wished to know if it was legal for the Vestry to advise parishioners to throw dust and ashes about the roads. He had seen a notice issued by the police magistrate so advising people. Mr. Greenwell (Vestry clerk) said it would not be legal to so advise the ratepayers. The dust and ashes of the parishioners, according to the 137th section of "The Metropolis Local Management Act," were the property of the Vestry, who had full power to dispose of the same, and the person to whom they were sold had full power to take, carry away, and dispose of the same as he liked, for his own use.

**The Purchase and Sale of Land.**—On Friday (January 1st) an Act of Parliament began to take effect to amend the law relating to vendor and purchaser, and to simplify the title to land. This may be regarded as a commencement of Chancery reforms, and to simplify the sale of land. After the 31st December last, 40 years is to be substituted for 60 years as the root of title in the sale of land, and new rules are set forth as to the obligations of vendors and purchasers. The statute simplifies the conveyance of title of legal representatives by trustees and married women, and, after the commencement of the statute, there is to be no priority or protection, or of tacking allowed. Furthermore, vendors and purchasers may obtain a decision at chambers as to requisitions, objections, or compensations in estates. This will lead to other reforms, and simplify the sale of land.

**Designs for the Plasterers' Company.**—The *Labour News* reminds us that the Science and Art Department of the Committee of Council of Education, South Kensington, announce that the Plasterers' Company offer prizes to be competed for by students in metropolitan and provincial schools of art in connexion with the Department:—1. A model in plaster, for an ornamental bracket intended to support a bust or statuette,—for the best, 7*l.* 7*s.*; for the second-best, 4*l.* 2. A design in monochrome, capable of being executed in plaster, in low relief, for the ornamentation of a doorway of any of the principal rooms of a dwelling-house,—for the best, 8*l.* 8*s.*; for second-best, 5*l.* 5*s.* Designs in competition must be sent to the Science and Art Department, in April, 1875, with the works required by the regulations in the Art Directory. The designs will be judged by the Art Department.

**The Anstice Memorial Institute and Workmen's Club, Madeley.**—The restoration of this handsome structure, which was to a great extent destroyed by fire in March last, is now complete. The building was raised about five years ago in memory of Mr. John Anstice, whose many virtues and unwearied efforts to benefit his neighbours, particularly the poorer portions of them, endeared him to all who knew him, and it has now been restored at a cost of 1,800*l.* In addition to the large lecture-room, which is 75 ft. long by 40 ft. wide, a gallery, not previously completed, has been added; and improvements have been effected by means of steps from the body of the hall to the raised platform at the opposite end of the room, and by the addition of a handsome cornice, which adds to the appearance. The work has been carried out by the original architect, Mr. J. Johnson, of Moorgate-street, London; and Messrs. Nevitt, of Ironbridge, the builders.

**Wells Polluted with Gas.**—An unusual circumstance has occurred, in the pollution of some of the Galashiels wells by an impregnation with coal-gas, in the district embracing the head of High-street and foot of Island-street. The main-supply gas-pipe is about 20 yards from these wells, and it is supposed that a serious leakage exists somewhere. The whole soil is tainted with a strong smell of gas, and it is believed that it has even entered the Water Company's supply-pipes. Whether arising from this or from some other cause, typhoid fever of a somewhat malignant type has manifested itself in the district adjoining the polluted wells, and two cases have had a fatal issue.—*Scotsman.*

**Sewage in the Regent's Canal.**—At the Marylebone Vestry, on the 31st ult., in answer to Mr. Hallam, the chief surveyor (Mr. Tompkins) stated that, in accordance with the directions of the board, he had, with the assistance of the surveyor of the Regent's Canal Company, inspected the canal in the parish with a view to ascertain if there are any houses draining into it. The result was, that he found one house, situate in Grove-road, draining into the canal, the owner of which house had now been ordered by the Canal Company to connect his drain with the sewers. Mr. Hallam remarked, that eminent analysts had tested the water of the canal, and found it to be quite as bad as any sewer matter. He hoped the vestry would look into the question. The sewer committee are to investigate the matter.

**Needham Market Brewery.**—Messrs. G. A. Clowes & Co., maltsters and brewers, of Needham Market, have recently erected a new brewery near the railway station. The building was constructed from designs by Mr. Thomas Wilkins, architect, of London, late of Ipswich. The tower, or main part of the building, is about 70 ft. high, and on one side is the cooler-house, on the other the boiler-house. The whole is built of red bricks, with white finishings to the windows and quoins, and is of a substantial character. It is a five-quarter steam brewery, and contains a boiler of 10-horse power and engine of 4-horse. Messrs. G. & R. Scopes did the brick-work; Mr. Theobald the wood-work; and Mr. Cooper the plumbing and glazing, all being tradesmen in the town. The engineers were Messrs. Catchpool, Stannard, & Stanford, of Colchester, and the copper-smiths Messrs. Blundell & Co., of London.

**The Water we Drink.**—As the result of a chemical analysis of the waters furnished to the metropolis during December, Dr. Frankland reports that, in consequence of the Thames being in flood in the early part of the month, the companies drawing their storages from that river experienced the usual difficulties in supplying efficiently filtered water. In the water of the Grand Junction and Lambeth companies "living and moving organisms" were found. The Chelsea Company's water, however, besides "abundance of such organisms, contained fragments of woollen and cotton fabrics, clots of the mycelium of a fungus, and fibres of partially digested or decomposed flesh meat." Dr. Frankland further adds, "the water thus charged with fœcal and other refuse matters was unfit for dietetic purposes, and could not be so used without serious risk to health."

**Which is the Smallest Church in England?**—The discussion of this question has had an interest for correspondents of *Church Bells*, which may be shared by some of our readers. Several churches having been mentioned in previous numbers, the Rev. H. T. Ellacombe puts in his plea, thus:—Culbone Church, on the borders of Exmoor, near the shore of Porlock Bay, is a perfect little Norman building. The chancel is 10 ft. wide, by 11 ft. 3 in. long; the wall of the chancel arch is 2 ft. thick; the length of the nave is 21 ft. 6 in. in the clear; 12 ft. 3 in. wide. Total length, 34 ft. 9 in. A porch on the south side is 6 ft. by 4 ft. There is a western bell-turret, closed up, containing two unlettered bells. A notice of this secluded spot has recently appeared in a *Leisure Hour* article.

**Sanitary Conference in Birmingham.**—The Sanitary Conference is to be held in Birmingham on the 14th instant. The following is the programme:—Morning sitting, ten a.m. till one p.m.; opening statement by Alderman Joseph Chamberlain, the mayor of Birmingham. Papers "On the Sanitary Condition of Birmingham," by Mr. A. Hill, M.D.; Bristol, Mr. D. Davies, M.D.; Leeds, Mr. G. Goldie, M.D.; Liverpool, Mr. W. French, M.D.; "The Comparative Mortality of Large Towns," by Mr. B. Foster, M.D. Discussion. Afternoon sitting, three till five p.m.; papers "On Improved Dwellings for the Working Classes," by Sir Sydney Waterlow, bart., M.P.; Bailie Morrison; Mr. W. Swindlehurst. Discussion. "Hospitals for the Isolation and Treatment of Infectious Diseases," by Mr. J. B. Pritchett, M.D. Discussion.

**Warwick.**—It is proposed to construct a reservoir on each side of the roadway near Haseley Mill, the one on the left to be a settling reservoir, 10 ft. deep, to contain 2,116,000 gallons; and that on the right, a storage reservoir, of a depth of 16 ft., of the capacity of 19,519,487 gallons.

**Proposed Conversion of a City Church.**—A proposal has been set on foot, having the approval of the Bishop of London, and supported by the parish authorities and parishioners generally, to convert the ancient Church of St. Michael, Queenhithe, into a national school. The original edifice, which was built in 1181, was burned down in the Great Fire of 1666, and was rebuilt by Sir Christopher Wren. The archives of the parish (still preserved) date back to the time of Edward VI., amongst which is a churchwarden's book, curiously illuminated. There is also a marble font, dug out of the ruins of old Trinity Church, and an entrance-door surmounted with richly-carved fruit and flowers, by Grinling Gibbons. Should the change be carried out, these will be removed to St. James's, Garlickhithe.

**More Money for the Hastings Town-hall.**—Since the return of the plans for the proposed Town-hall and public offices, to the competitors, a general committee of the Hastings Council has been considering what to do. At the monthly meeting of the Corporation, on Friday, the 1st inst., the Committee reported in favour of rescinding the resolution to spend 10,000*l.* only on the building, and recommended that 20,000*l.* should be voted for the purpose. They also recommended that a new competition be opened, and that only those persons who had previously sent in designs should be permitted to join in the competition. All the recommendations were adopted, only one member speaking or voting against them.

**Somerford Keynes Church.**—There are no records which enable a correct opinion to be formed respecting the date of this church, which is dedicated to All Saints. The oldest register in the parish books is 1560, the third of Elizabeth. The church has two interesting features,—a semicircular arch on the north wall and a painting of St. Christopher on the same wall inside, much like the one in the church of St. John the Baptist, Cirencester. This is considerably defaced; but, if circumstances allow, it will be preserved. Messrs. Waller & Son, of Gloucester, having examined the fabric, report that a thorough and necessary repair, preserving the character in every possible form, will not be effected under 990*l.* The roofs of the whole building, without any exception, are bad.

**The Factory Act** passed last session came into operation on the 1st inst. It aims at improving the health of women, young persons, and children employed in manufactories, and the education of such children. The period of employment is to be from six to six or from seven to seven o'clock; the employment not to be continuously longer than four hours and a half without half an hour for a meal, except on Saturdays, when the employment is not to be beyond half-past one o'clock. Two hours each day, save on Saturday, to be allowed for meals, and one hour before three o'clock. There are provisions in the new Act as to education and school attendance. Employment during meal time is strictly prohibited.

**Demolition of Mendelssohn's House.**—The Mendelssohn house at Berlin, which has long enjoyed a world-wide renown from its association with departed genius, is about to be pulled down, and rebuilt in a form better adapted to secure a profitable rental for its proprietor. It was familiar to travellers as well as to native-born Berliners through the black marble tablet on the front which recorded in gold letters that within its walls "the immortal M. Mendelssohn had lived and laboured, who was born at Dessau in 1729, and died at Berlin in 1786." The house was subsequently occupied by Rammler, Mylius, Nicolai Lessing, and the younger Mendelssohn.

**Fleet-street and the Embankment.**—A meeting of the residents of Fleet-street and its immediate vicinity and Whitefriars-street was held last week at the Welsh Harp, Bouverie-street, "to consider the best means of obtaining an approach from Fleet-street to the Victoria Embankment," Mr. Johnson presiding. After some discussion it was decided that a memorial to the Metropolitan Board of Works and to the Commissioners of Works should be prepared for signature, pointing out the necessity for this approach to the Embankment.

**Industrial Exhibition at Kettering.**—Earl Spencer opened the Kettering Industrial Exhibition on the 29th ult. The Countess Spencer and Mr. S. Sackville, M.P., were among those present,

**The Artisans' Institute, London.**—At a New Year's *soirée*, held in this institute, Lord Lyttelton, who occupied the chair, said he knew of no institution of the kind which seemed to be doing so much good, especially by the lectures given there on history and political economy. He was also particularly glad to see the progress Mr. Solly was making towards realising his idea of getting practical workshop teaching combined with theoretical scientific instruction in courses of technical training. They had more than 200 members, and eight or nine classes in full swing.

**Wages in Paris.**—According to the *Moniteur*, the average wage of the men of all trades in France taken together is 2*f.* 90*c.*, and that of the women is 1*f.* 29*c.* In Paris the wages exceed the above averages. The ornamental sculptor earns 7*f.*; the watchmaker, 5*f.*; the jeweller, 6*f.*; the metal-turner, 6*f.*; the stone-cutter, 6*f.*; and the ropemaker, 4*f.* The average wage of the Parisian workman is 4*f.* 99*c.*, and that of the Parisian workwoman 2*f.* 78*c.*

**Reredos, Fairford.**—An addition has just been made to the interior of Fairford church, in the shape of a reredos, which has been presented by the vicar, the Rev. Lord Dynevor. The work, which is of Caen stone, carved and ornamented, and relieved by small marble columns, was designed by Mr. Maberley, of Gloucester, and has been executed by Mr. Humphries, of Cheltenham.

**Market for Leeds.**—The Leeds Town Council met on the 1st inst., under the presidency of the mayor (Ald. Marsden). A motion, brought forward by Ald. Addyman, in favour of extending the Kirkgate Market at an expense of 40,000*l.*, led to a long and interesting discussion. The Council adopted the plans drawn by the borough engineer, and recommended by the Markets Committee.

**Removal of the Designs Office.**—This office is to be removed from Whitehall to premises closely adjacent to those now occupied by the Patent Office. This change of locality is expected to be followed by important alterations in the administration of the department, as it will be transferred to the control of the Commissioners of Patents instead of remaining under the Board of Trade.

**New Lying-in Wards for St. Pancras.**—The St. Pancras Guardians have resolved to erect a block of buildings for lying-in and infants' wards, at the Workhouse, at a cost not exceeding the sum of 5,500*l.*, and at their meeting on Thursday they agreed to borrow the amount under the Union Loans Act, 1869, to be repaid by equal annual payments extending over thirty years.

**Australian Wages.**—The *Melbourne Argus* giving an account recently of the wages paid in the colony of Victoria, mentions that plasterers, bricklayers, and carpenters get 10*s.* a day, the day's work being eight hours; labourers, 7*s.* The building trades are in full work. Cabinet-makers, from 4*l.* down to 2*l.* a week; less in the country. Navvies on the Government railways get 9*d.* per hour.

**Institution of Surveyors.**—At the meeting, on Monday evening last, a paper, "On the Landlord and Tenant Question," was read by Mr. J. E. Knollys, of Taunton. After a brief discussion on some incidental points raised by the paper, it was resolved to postpone the consideration of the general question until the meeting of January 18th.

**Hall for Worcester Musical Festival.**—The Earl of Dudley has written, proposing, as a solution of the question respecting the holding of the Worcester Musical Festival, that a temporary building should be erected for the next festival, and that in the following interval of three years before the ensuing festival, a music-hall might be built.

**Licensed Victuallers' Asylum.**—The annual ball, in aid of the funds of this asylum, is fixed to take place at St. James's Hall on Thursday, the 14th inst.; and, as the annual expense of this extensive institution exceeds 7,000*l.*, the Board look anxiously for a good attendance upon the occasion.

**The Yorkshire Exhibition at Leeds.**—The committee have accepted designs prepared by Mr. Bakewell, of Leeds, architect, for the covering in of the greater portion of the Coloured Cloth Hall yard.

**Folkestone Harbour Improvements.**—Extensive works are in preparation for improving the accommodation at the low-water pier, and a large staff of men will be employed for a considerable period. The old "Horn" is to be carried out so as to form a perfect barrier to the progress of the beach to the eastward. The Victoria Pier is also to be extended in a south-easterly direction for 100 yards, when a depth of water will be reached sufficient for the steam-boat traffic to be timed, irrespective of the state of the tide. The plans may now be seen at the Town-hall. They comprise the acquirement of a belt of land commencing at the Froghole steps and continuing along the coast-line to the Copt Point. This is the spot where, by a short tunnel, the tidal trains might be run alongside, if not on board, of the future boats for the improved Channel communication.

**New Vicarage for St. George's Parish, Sheffield.** — A vicarage is being erected in Chantrey-road, Sheffield, from the designs of Messrs. Flockton & Abbott. It is intended as the residence of the Rev. H. A. Favell, the incumbent of St. George's, and will cost 2,330*l.*, exclusive of the site.

**The Safe Transport of Gunpowder and Petroleum.**—No small matter this, and calling loudly for consideration. Mr. Jas. Ashley, C.E., has given the question much consideration, and has devised plans which are well spoken of by some who have looked into them. Persons interested should see to this.

**Value of City Property.**—Messrs. Hards, Vaughan, & Jenkinson have just sold by private contract the freehold of Nos. 4 and 4½, Lawrence-lane, Cheapside, occupying an area of 2,000 square feet, for the sum of 8,500*l.* The premises are let on lease for nine years, to run at 275*l.*

**Design for a Pump.**—Mr. William Henry Lockwood, architect, of John-street, Adelphi, has been awarded the premium of 5 gs. for the best design for a public pump and drinking fountain to be erected by the Seckford Charity Trustees at Woodbridge, Suffolk.

**Gold Medals to Artists.**—On the proposal of the Berlin Academy, the Emperor of Germany has conferred the great gold medal of art on the painters, F. Adam, Munich; Alma Tadema, London; and De Shampheleer, Brussels.

**Royal Architectural Museum.** — The Drapers' Company have presented 20 gs. to the Council of the Royal Architectural Museum, Tufton-street, Westminster, in aid of their Drawing and Modelling Classes for art-workmen.

## TENDERS

For enlarging the Brighton Grammar School. Mr. B. H. Nunn, architect:—

| | |
|---|---|
| Newnham | £2,323 0 0 |
| Nash & Co. | 2,274 0 0 |
| Bruton | 2,250 0 0 |
| Cheesman & Co. | 2,164 0 0 |
| Patching & Webber | 2,120 0 0 |
| Chappell | 2,120 0 0 |
| Barnes | 2,010 0 0 |
| Lockyer | 2,010 0 0 |
| Parsons | 2,008 0 0 |

For alterations and fittings to shop and premises, No. 459, Hackney-road, for Mr. W. H. Lee:—

| | |
|---|---|
| Treble & Son | £3.0 0 0 |
| Over | 229 0 0 |
| Jarvis & Sons (accepted) | 216 10 0 |

For the extension of Malting, Church-road, Croydon, for Messrs. Overton & Gibson. Mr. R. Davison, C.E., architect. Quantities supplied by Messrs. R. L. Curtis & Sons:—

| | Complete. | Without new roof to old building. |
|---|---|---|
| Smith | £1,763 0 0 | £1,465 10 0 |
| Peskett & Taylor | 1,495 0 0 | 1,229 0 0 |
| Waller | 1,373 0 0 | 1,194 0 0 |
| Jarrett (accepted) | 1,246 0 0 | 1,029 0 0 |

For laying in drains and forming roads on the Rosemary Branch Estate, Peckham (exclusive of granite kerb). Mr. Adams Murphy, architect:—

| | |
|---|---|
| Pound | £1,874 0 0 |
| Thompson & Son | 1,660 0 0 |
| Hancock | 1,630 0 0 |
| Bloomfield | 1,559 0 0 |
| Buckham | 1,522 0 0 |
| Wainright | 1,490 0 0 |
| Harris | 1,462 0 0 |
| Goodair | 1,452 0 0 |
| Pizzey | 1,420 0 0 |
| Jackson | 1,420 0 0 |
| Kelley | 1,353 0 0 |
| Batch (accepted) | 1,300 0 0 |

For the erection of Board schools, Combs, Suffolk:—

| | |
|---|---|
| Tooley | £2,047 0 0 |
| Nightingale | 1,983 0 0 |
| Smith | 1,919 0 0 |
| Gibbons | 1,749 0 0 |
| Hawkins | 1,674 0 0 |
| Andrews & Crowe | 1,670 0 0 |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*We give with this Number, as a Supplement, an INDEX and Title-page to the Volume of last year. A COLOURED TITLE-PAGE can be had, Gratis, on personal application.*

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### CONTRACTS, *continued from page* ii.

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